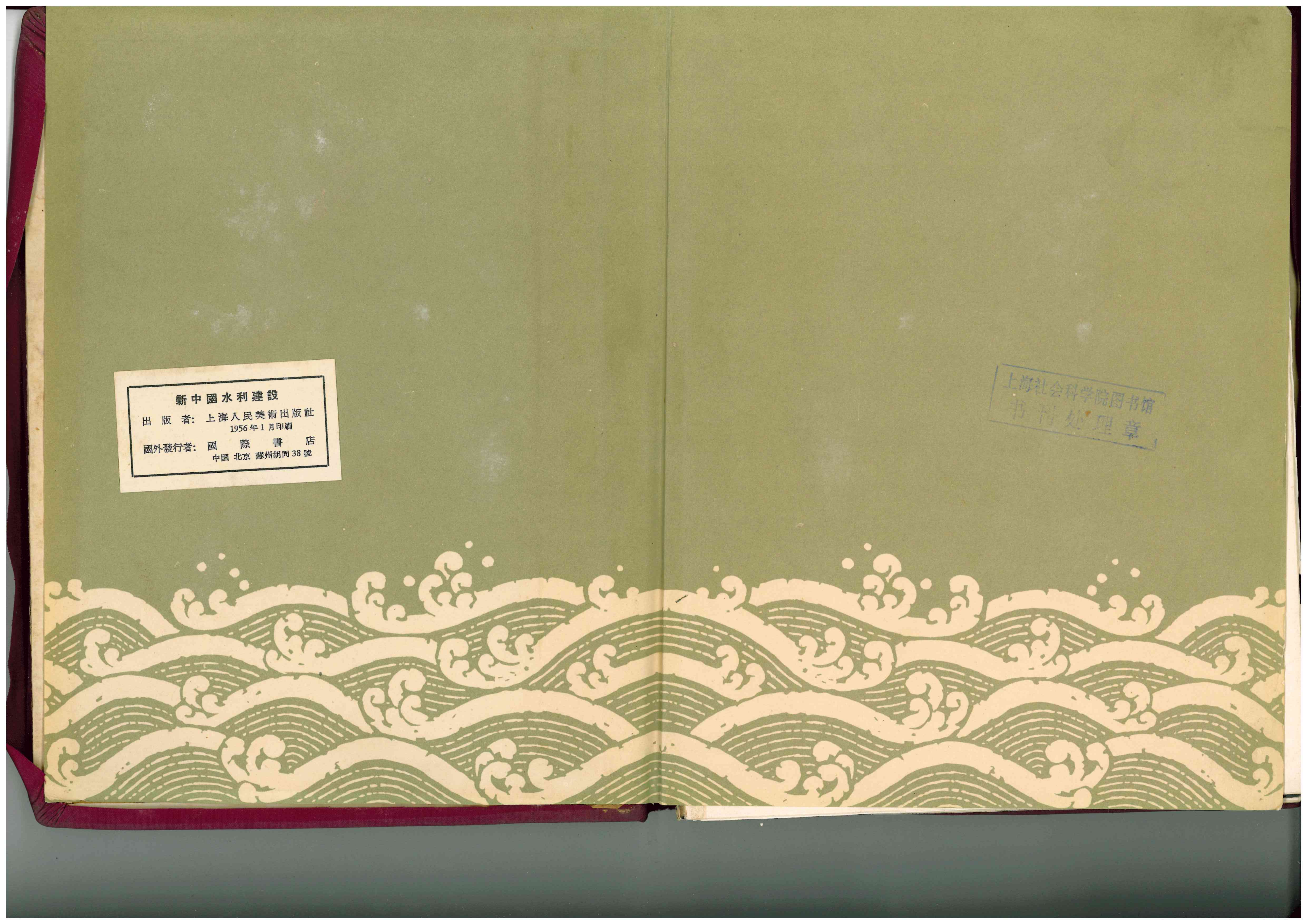
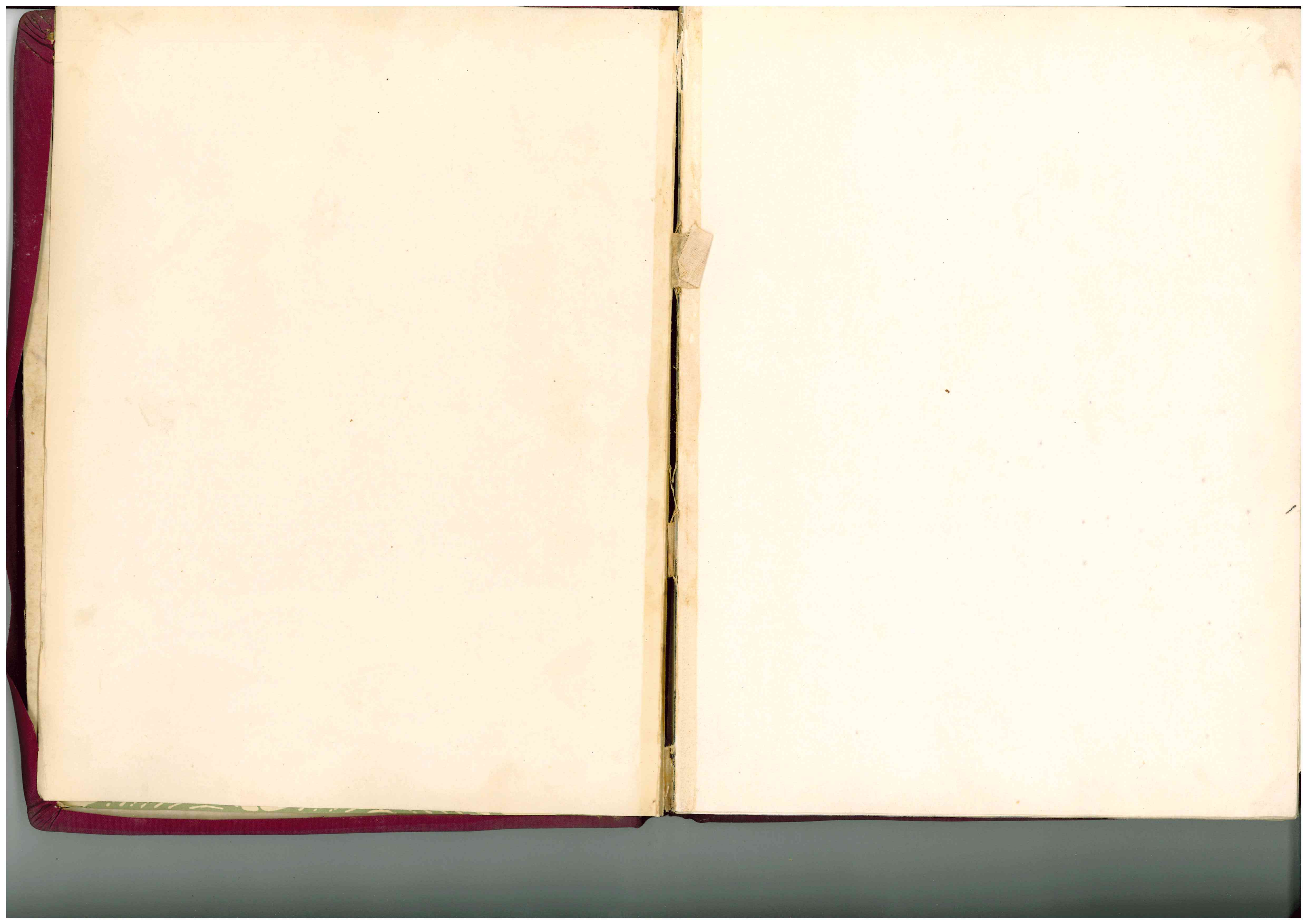
新中國水利建設

WATER CONSERVANCY IN NEW CHINA



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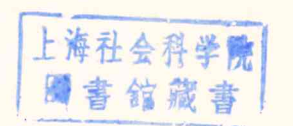
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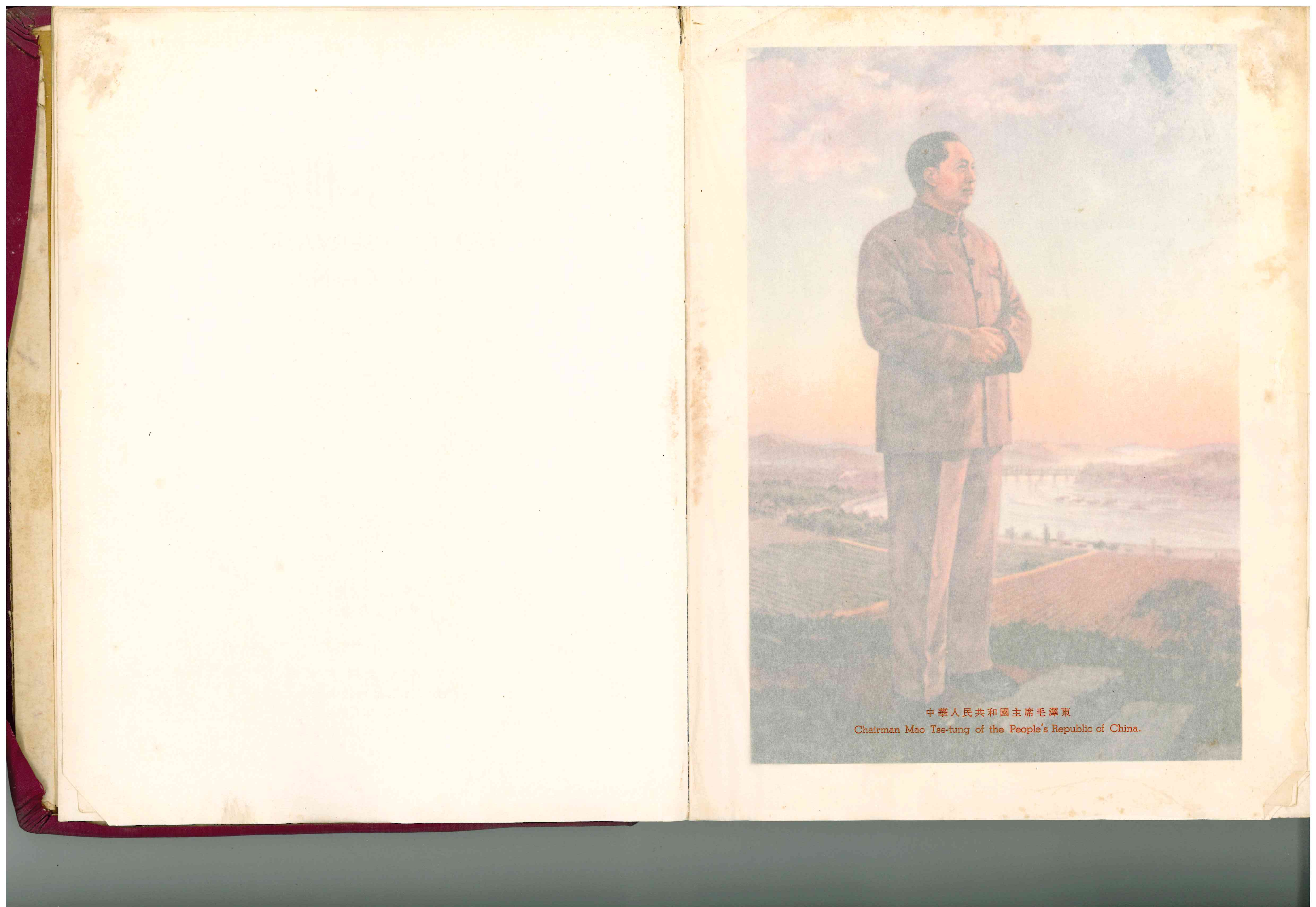
中華人民共和國水利部編

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中華人民共和國主席毛澤東
Chairman Mao Tse-tung of the People's Republic of China.



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Chairman Mao Tse-tung of the People's Repu

新中國的水利建設

我國地跨幾個不同的自然區域，大部地區處於温帶與亞熱帶。土地肥沃，物產豐富，河流衆多，蘊藏着豐富的水利資源。其中長江、黃河、淮河、珠江以及東北的松花江等巨大河流，更是我國文化和經濟發展的策源地。

我國人民對水利的開發、利用，已有悠久的歷史。但過去由於長期處於封建社會，特別是在國民黨反動統治時期，帝國主義、封建勢力及官僚資本主義重重壓迫之下，國民經濟極度萎縮，舊有的水利設施也因長期失修而備遭破壞，以致經常發生嚴重的水、旱災害。

在中華人民共和國成立以後，中國共產黨和人民政府對水利工作給予極大的重視和關懷。在國民經濟恢復時期和國家社會主義工業化的時期，水利建設的主要任務，是逐步減輕水、旱災害，保證農業生產的增長，促進工業和航運事業的發展。截至一九五五年六月底的不完全統計，共計已完成土工四十二億立方公尺，石工三千二百零九萬立方公尺，混凝土一百一十四萬立方公尺。通過這些巨大的工程設施，逐步地減輕了水、旱災害；對農業增產起了重大的作用，並爲今後水利開發奠立了基礎。

在我國幾條主要河流的治理方面，治淮工程規模最大，目前已完成五座山谷水庫和十五處湖泊、窪地蓄洪工程。另外還有兩個水庫正在興建。在淮河中游修建了潤河集分水閘，在下游修建了三河閘；從洪澤湖到黃海，開闢了蘇北灌溉總渠。此外還分別修建了主要幹、支流堤防，疏浚了河槽，並着手進行排澇工程。

黃河的根治與綜合利用的偉大規劃，已在蘇聯專家的幫助下，編製完成，並得到全國人民代表大會第二次會議的通過。在積極準備黃河治本工作的同時，整修了一千八百公里的黃河大堤，完成了土方一億三千萬立方公尺，並針對一九三三年式的洪水，修築了蓄洪、滯洪等工程。爲發展灌溉，修建了引黃灌溉濟衛工程。

長江除全綫加強了堤防以外，並在中游修築了巨大的荆江分洪工程。

海河水系的永定河修建了官廳水庫。大清河、子牙河也作了局部整理，並開闢了一條分流入海的減河。

與河流治理的同時，在我國廣大的山區與平原，普遍進行了農田水利的興修工作。其中包括數以百萬計的渠道、塘堰、水井及抽水機站等，共擴大灌溉面積八千三百餘萬畝。

在一九五四年我國所發生的特大洪水時期，這些工程發揮了重大作用，特別是治淮工程和荆江分洪工程，都按計劃攔蓄了洪水，使許多城市和農村減免了水災，並保證了重要的鐵路交通的正常運轉。

以上所說，只是我國水利建設的偉大開端。我國社會主義建設的勝利邁進，給水利建設的發展開闢了更爲廣闊的前途。在農業互助合作運動下，農民有了更大的力量，來發展多種多樣的農田水利工程。在中國共產黨和人民政府的領導下，我們正根據水利、土地資源綜合利用和治標、治本相結合的方針，逐步減輕水、旱災害，並有步驟地開發利用黃河、長江、淮河、珠江這些巨大河流的水利資源，以推動我國工、農業的發展。

WATER CONSERVANCY ACHIEVEMENTS IN NEW CHINA

Our country stretches over various geographical regions, the major part being situated in the temperate and subtropical zones. It possesses fertile lands and plentiful products, and is traversed by numerous rivers with abundant water resources. Among the river basins, particularly those of the Yangtze, the Yellow, the Huai, the Pearl and the Sungari are the centres of our country's cultural and economical development.

Our people have a long history in the development and utilization of water resources. For centuries, however, under feudalistic rules, especially under the combined oppression of imperialism, feudalism and bureaucratic capitalism during the Kuomintang reactionary regime, the national economy was badly shattered, what had been achieved in water conservancy was ruined owing to long years of negligence, and in consequence disastrous floods and droughts occurred frequently.

Since the founding of the People's Republic of China, the Chinese Communist Party and the People's Government have paid much attention to water conservancy. During the period of national economic recovery and the period of socialist industrialization, the main tasks of water conservancy are to alleviate the disasters of flood and drought to insure a steady increase of agricultural production, and to promote the development of industry and river navigation. According to incomplete statistical figures up to June of 1955, more than 4,200 million cub. m. of earthwork were done, 32 million cub. m. of masonry laid and 1,140,000 cub. m. of concrete placed. These great achievements have helped effectively in the diminution of flood and drought damages, played an important role in the increase of agricultural production, and laid a firm foundation for the further development of water conservancy.

Among our river projects now being carried on, that of the Huai River is the largest in scale and extent, with 5 reservoirs and 15 flood detention basins already completed and 2 additional reservoirs under construction. In the middle reaches of the Huai River, a flood control regulator has been constructed at Jenhochi. In the lower reaches, the Sanho Regulator has been constructed, and a main irrigation canal has been dug in the northern part of Kiangsu Province from the Hungtze Lake to the Yellow Sea. Besides, dikes have been constructed along the main water course and the tributaries, channels have been dredged, and the land drainage works are being under way.

On the Yellow River, a great plan for the permanent control and unified development of the Yellow River has been prepared with the aid of Soviet experts, and has been approved by the Second Session of the First National People's Congress. Alongside of preparing for a valley development project 130 million cub. m. of earthwork have been done on the 1,800 km. dike system. Besides, flood detention basins have been constructed to cope with floods of 1933 magnitude. For the development of irrigation, People's Victory Canal has been built.

On the Yangtze River, in addition to the strengthening of all dikes, a huge Chinkiang Flood Diversion Basin has been built on its middle reaches.

In the Hai River system, the Kuanting Reservoir has been completed on the Yungting River, some channel improvement has been made on the Taching and Tzeya rivers, and a flood escape channel leading to the sea has been constructed.

Together with river development projects, farm irrigation works have been carried on extensively in the vast plains and hilly regions. Among them, millions of canals, ponds, wells and pumping stations have been constructed, which serve a newly added irrigated area of over 83,000,000 *mou*.*

The severe floods of 1954 proved the effectiveness of these works, notably those of Huai River and Chinkiang, all of which functioned satisfactorily according to plan, and protected many cities and vast farms from inundation and ensured the normal operation of the important railroads.

The above-mentioned are but the great beginning of the water conservancy constructions in new China. With the victorious progress of our socialist construction, water conservancy has been given a broad future for development. The agricultural mutual-aid co-operative movement have given more strength to the farmers, enabling them to carry out a wide variety of farm irrigation works. Under the leadership of the Chinese Communist Party and the People's Government, we are pursuing a policy according to which both water and land resources are to be systematically exploited and emergency and long-range measures are to be fully co-ordinated, to diminish flood and drought damages, and to develop step by step the water resources of the large rivers—the Yellow River, the Yangtze River, the Huai River, and the Pearl River—to push our industry and agriculture forward.

*A *mou* equals one-sixth of an acre.

偉大的治淮工程

淮河幹流全長一千零八十七公里，流經河南、安徽、江蘇三省，流域面積二十餘萬平方公里，流域以內耕地約一億七千萬畝，人口約六千萬。這裏原是我國豐饒的農產區，人民熱愛自己的家鄉，他們說：「走千走萬，不如淮河兩岸。」但數百年來黃河屢次侵佔淮河的河道，特别是一九三八年蔣介石匪幫炸開黃河大堤，使黃水漫流入淮，嚴重地破壞了淮河水系，造成了全國有名的「大雨大災，小雨小災，不雨旱災」的重災區。

一九五〇年我們的偉大領袖毛主席提出「一定要把淮河修好」的號召，並確定以「蓄洩兼籌」、「變水患爲水利」的治淮方針。

治淮的要求分爲兩個步驟：第一個步驟是在全流域範圍內，着重消除普通暴雨情况下的洪水與內澇災害，並爭取幹、支堤在遭遇一九二一年同樣洪水時不致决口氾濫。第二個步驟是在上述基礎上結合工、農業生產的發展，消除非常洪水的災害，並統籌開發水利，興修大規模的灌溉工程及廣泛羣衆性的農田水利，並發展航運，開發電能。

幾年來的治淮工程，首先是從防止幹流及主要支流的洪水氾濫和減輕內澇方面着手，解除嚴重威脅人民當前生活的經常性的水患。截至目前止，計已完成水庫五座，正在修築者二座，其中已完成的佛子嶺水庫攔河壩是高達七十公尺的鋼筋混凝土連拱壩；又完成有控制的湖泊、窪地蓄洪工程十五處，控制性水閘及涵洞一百六十座，修復與加培堤防二千八百四十公里，疏浚和新開河道及溝洫共二百九十八條，總長六千三百零三公里，共完成土方工程達四億餘立方公尺。

通過這些工程，淮河流域防禦洪水的能力，已經得到不同程度的加強和改善；下游江蘇地區，由於上、中游控制洪水的作用及三河閘與蘇北灌溉總渠的完成，在一九二一年洪水（近年來歷時最長、總量最大的洪水）情况下，已可基本上消除淮河洪水的威脅，並爲蘇北廣大地區灌溉、航運事業的發展建立了基礎。配合灌溉和航運的一部分水閘和船閘工程也已修建完成。中游安徽地區，在潤河集分水閘及其相關的湖泊、窪地蓄洪工程的調節控制下，如遇一九五〇年式的洪水（近年來蚌埠以上水位最高的洪水），淮河幹堤也不致潰决。上游河南地區，洪、汝河有石漫灘、板橋、薄山水庫及窪地蓄洪工程調節，配合河道整理，防洪

情況已有改善。潁河上游，在修築白沙水庫後，洪水威脅也有所減輕。在減輕內澇災害方面，一些爲患嚴重的支流，多已進行了初步的疏浚和整理，配合羣衆性的溝洫工程，內澇情況已逐漸改善。

目前治淮工程，正在根據既定的計劃和一九五四年洪水以後的情況繼續進行。正在進行的重要工程中，有支流史河的梅山水庫，溮河的南灣水庫，泥河窪蓄洪工程，濉河、西淝河、北淝河等支流的治理和白沙水庫的灌溉渠以及下游射陽河、三倉河等河的擋潮閘工程。另外還有許多工程正在勘測設計中。

根治淮河是個較長期的水利建設事業，現在千百萬治淮員工正在西自桐柏山，東至黃海濱的千里淮河上，努力建設，向着更大的勝利前進！

THE GREAT HUAI RIVER PROJECT

The main course of the Huai River has a total length of 1,087 km., traversing three provinces, namely Honan, Anhwei and Kiangsu, and draining an area of over 200,000 square kilometers with cultivated land amounting to 170 million *mou* and a population of approximately 60 million. This basin used to be a rich agricultural zone in our country, and the people who loved their native places used to say "Wherever you may go, nowhere will you find a land like that of the Huai River". However, in the past few centuries, the courses of Huai River were frequently invaded by the Yellow River, especially in 1938, when the Chiang Kai-shek gang purposely breached the dikes along the Yellow River, caused the yellow water overflowing into the Huai, thus seriously destroyed the Huai River system, and thereby turned the basin into a severe famine district, where "heavy rain resulted in heavy disaster, slight rain, in slight disaster and no rain, in drought".

In 1950, our great leader, Chairman Mao, issued the appeal that "the Huai River must be harnessed", and also decided upon the principle that the project must be based on "the full co-ordination of storage and channel dispatch" and "turning water from a menace into a resource".

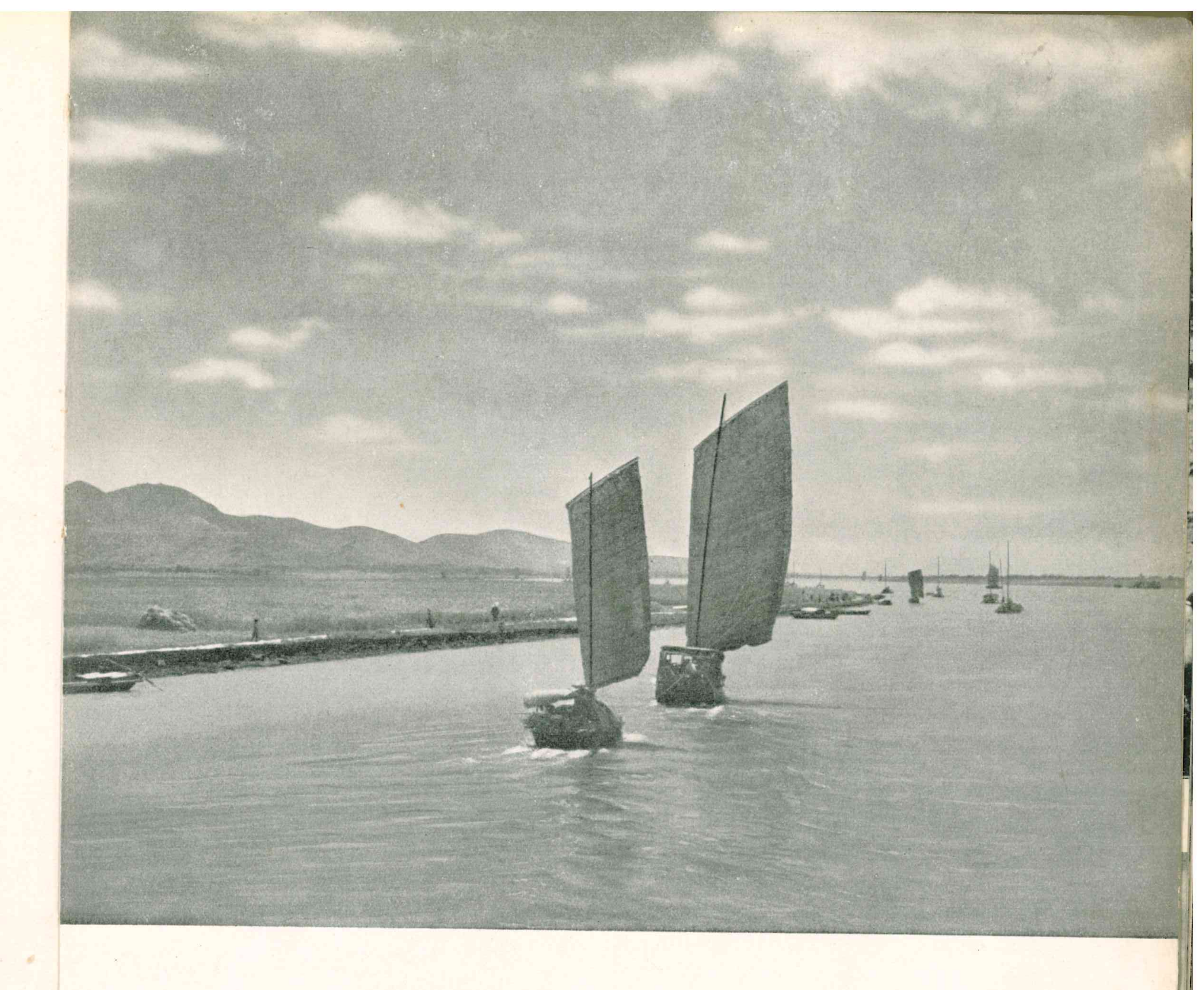
The project is to be carried out in two stages. The aim of the first stage is to eliminate the damages caused by flood inundation and water-logging and to prevent dikes on the main course and tributaries from breaking even if floods of the 1921 magnitude would reccur; that of the second stage is to eliminate floods of unusual magnitude and in connection with the development of industrial and agricultural production to exploit water resources through irrigation, river navigation and power generation.

During the past few years, the regulation of the Huai River has aimed at the prevention of the flood inundation of the Huai River and its principal tributaries, and the improvement of the land drainage, in order to eliminate the flood disasters which seriously threatened the livelihood of the people. Up to date, 5 reservoirs have been completed and 2 are now under construction. Among the completed ones, there is at Futzeling a reinforced concrete multiple-arch dam over 70 meters high. In addition, 15 flood detention basins and 160 controlling gates and culverts have been constructed, 2,840 km. of dikes repaired and strengthened, 298 channels and drainage ditches totaling 6,303 km. in length dredged and excavated, altogether over 400 million cub. m. of earthwork have been done.

With these works now in operation, flood situation on the Huai River has been considerably improved. Along the lower part of the Huai River in Kiangsu, through the control of its upper and middle reaches and the completion of the Sanho Regulator and the Main Irrigation Canal, the menace of floods from the Huai River under floods of 1921 magnitude (the worst floods in recent years both in volume and duration) has been practically eliminated. Furthermore, foundation has been laid for the further development of irrigation and navigation in vast areas in Northern Kiangsu, and some sluice gates and locks serving these purposes have already been completed. Along middle part of the Huai River in Anhwei Province, the main dikes would be safe from breaches under floods like those occurred in 1950 (which caused the highest river stage above Pengpu in recent years) through the operation of the Jenhochi Regulator and its related flood detention basins. In the upper part of the Huai River in Honan Province, the state of flood prevention has been improved as a result of the regulation of water by the Shihmantan, Panchiao, Poshan reservoirs and the flood detention basins coupled with channel improvement. Since the completion of the Paisha Reservoir, the flood situation in the upper Yin River, a tributary of the Huai River, has also taken a turn for the better. As to the lessening of the damages caused by poor land drainage, several troublesome tributaries have already been to some extent dredged or improved and many drainage ditches have been dug, and all this has helped gradually to improve the situation.

Now the Huai River project is being carried on according to set program, taking into consideration the conditions of the 1954 flood. Important works now under construction include: the Meishan Reservoir, the Nanwan Reservoir, flood detention basins, the improvement of tributaries like the Sui, the Sifei, and the Peifei rivers, the irrigation system in connection with the Paisha Reservoir, and the tidal gates on the Shenyang and Santsang rivers. Furthermore, a number of engineering undertakings are now in the design stage.

To put the Huai River under complete control is a task that will take quite a long time. Thousands and thousands are now working enthusiastically all along the river stretching from the Tungpeh Mountain down to the Yellow Sea for ever greater victories.



優美的淮河。
The beautiful Huai River.

這幅圖片生動地記載了淮河人民歷史上的災難。一九三八年蔣介石匪幫挖開黃河大堤造成了黃泛區，人民家破人亡，流離失所。

The historic disaster of the people living in the Huai River basin. In 1938, the Chiang Kai-shek reactionary clique purposely breached the Yellow River dyke. People in the inundated area were rendered homeless.





黃泛區洪水過後，土地龜裂，不能耕種。

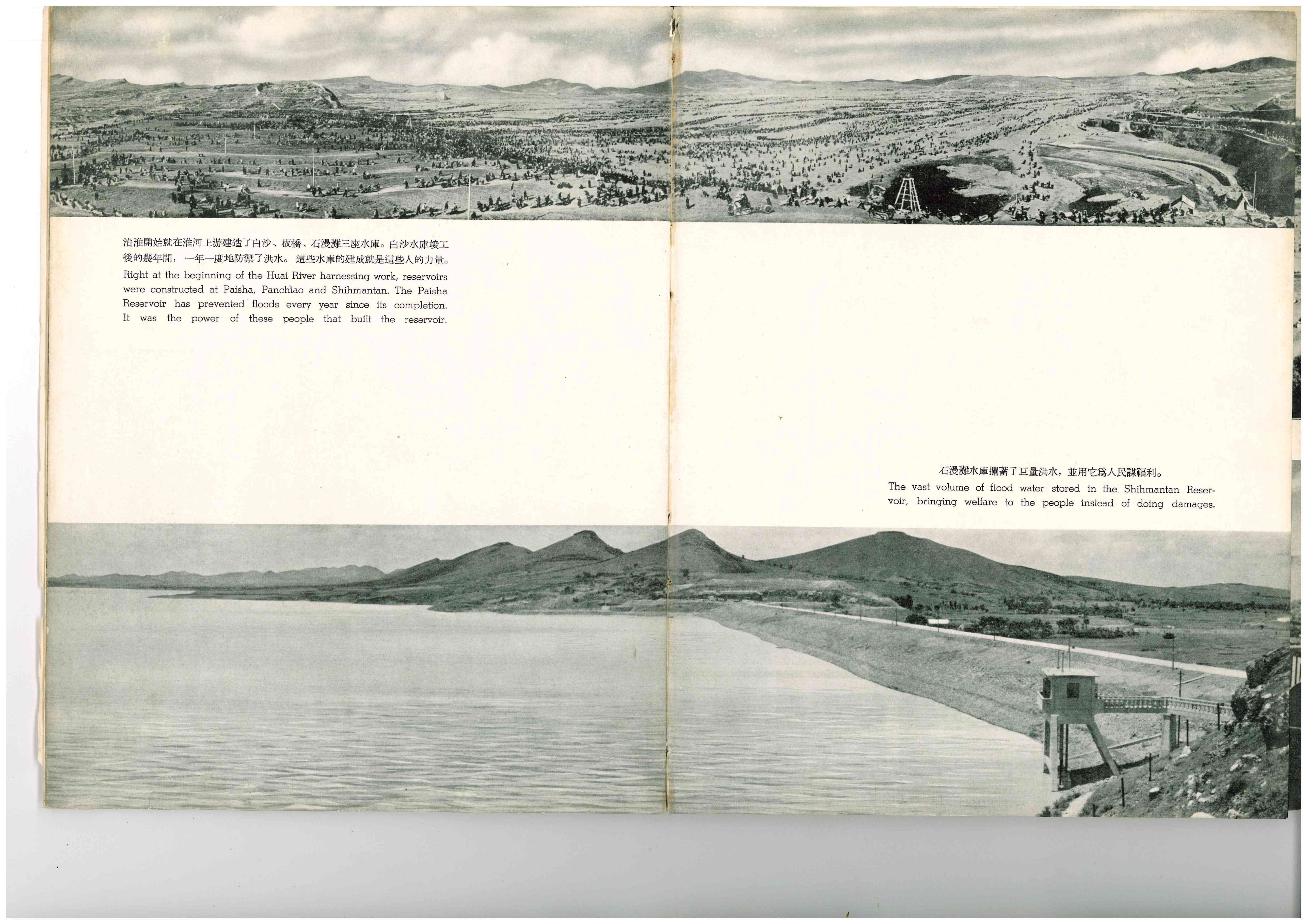
In the Yellow River flood zone, the earth was rendered totally unfit for cultivation.



爲根治淮河貢獻科學資料的測量隊員們，翻山涉水，步踏千里淮河，進行全面的測量工作。
Surveying teams at work all over the basin, scaling mountains and wading streams, for the collection of scientific data for the Huai River development project.

偉大的治淮工程開始了。沿淮千百萬人民擎起了毛主席「一定要把淮河修好」的旗幟走向工地。
The great work started. Thousands and thousands of people in the basin marching to work with banners bearing Chairman Mao's call "The Huai River must be harnessed."





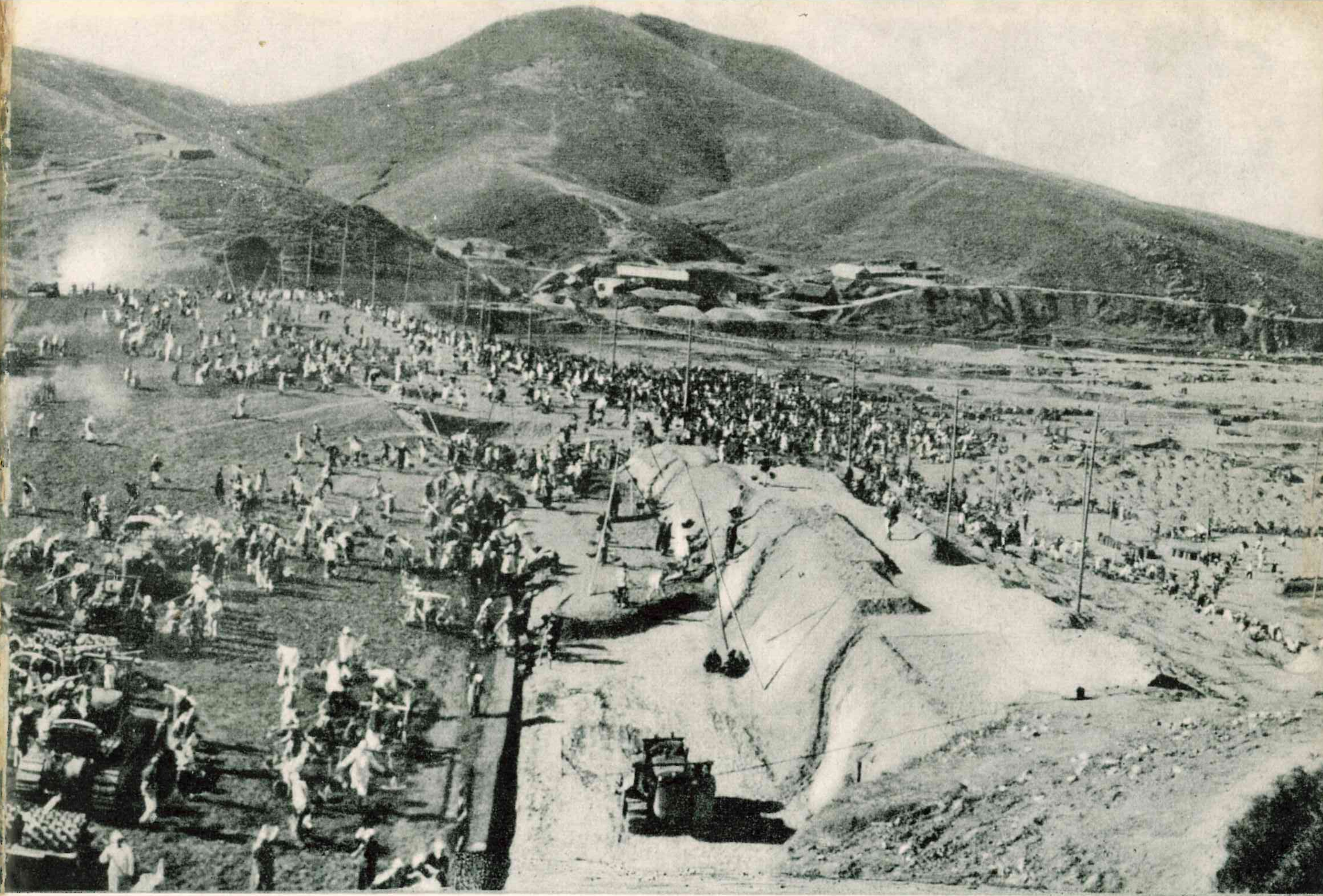
治淮開始就在淮河上游建造了白沙、板橋、石漫灘三座水庫。白沙水庫竣工後的幾年間，一年一度地防禦了洪水。這些水庫的建成就是這些人的力量。

Right at the beginning of the Huai River harnessing work, reservoirs were constructed at Paisha, Panchiao and Shihmantan. The Paisha Reservoir has prevented floods every year since its completion. It was the power of these people that built the reservoir.

石漫灘水庫攔蓄了巨量洪水，並用它爲人民謀福利。

The vast volume of flood water stored in the Shihmantan Reservoir, bringing welfare to the people instead of doing damages.



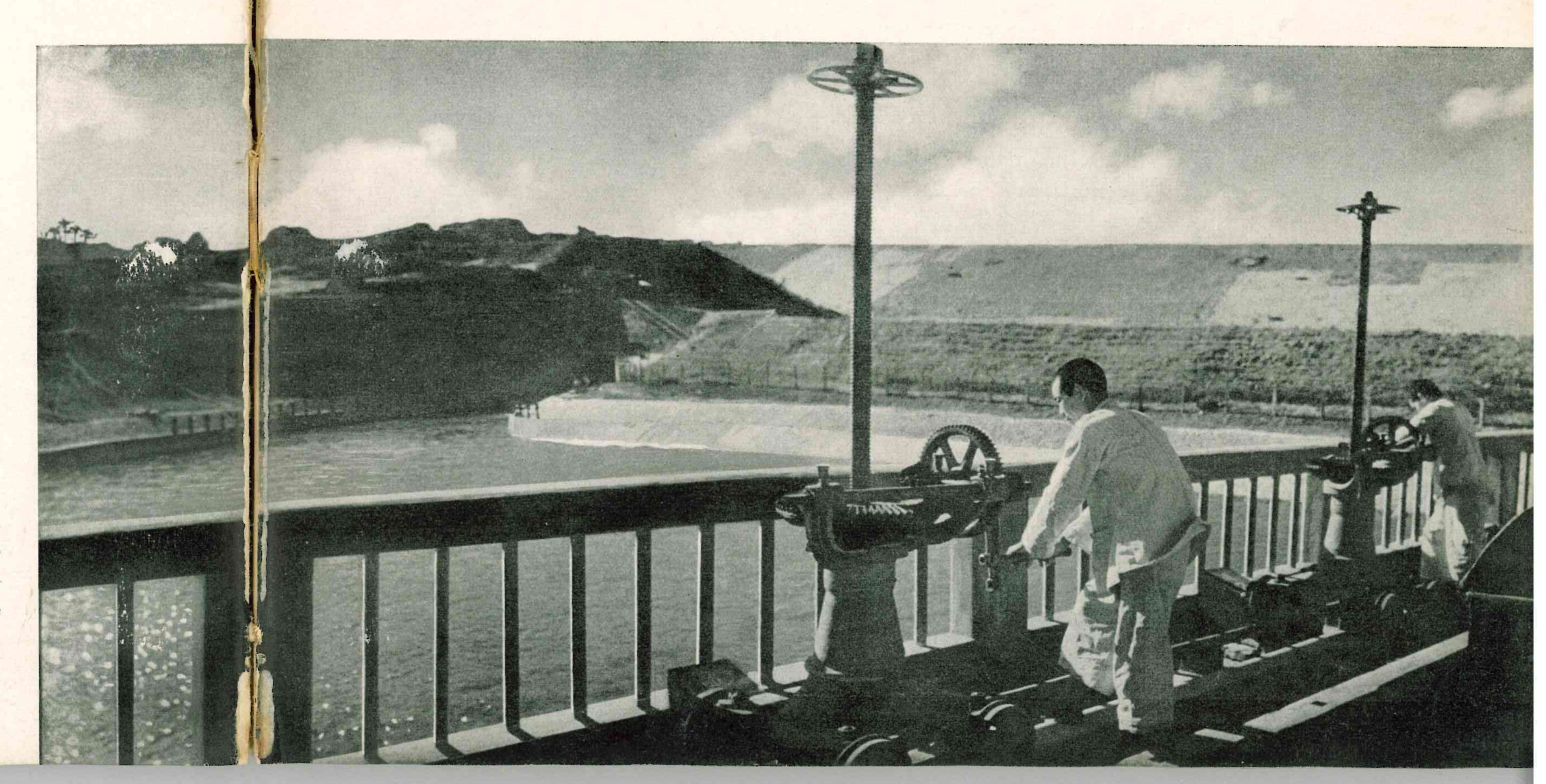


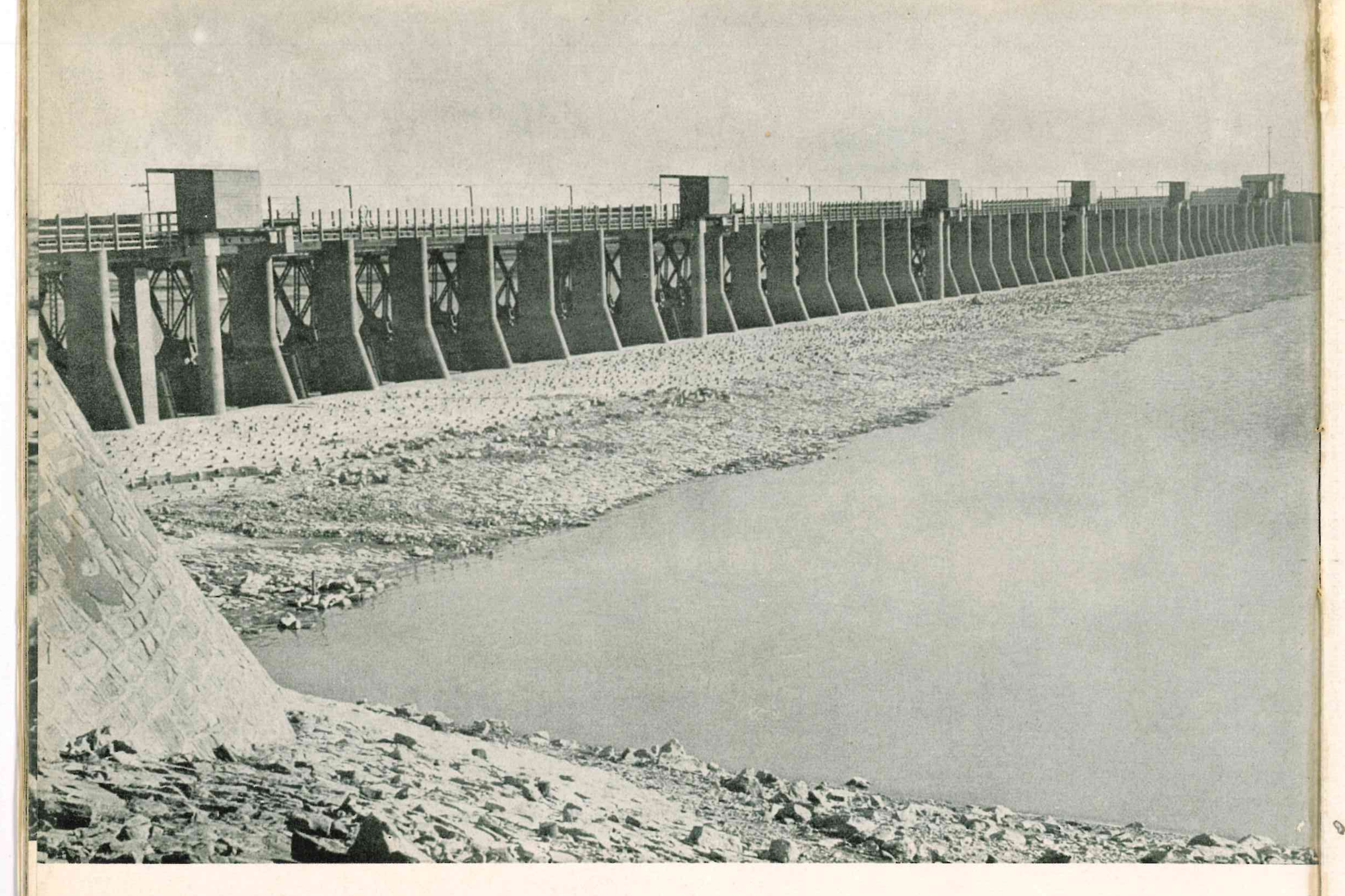
在統一的計劃下，千里淮河各個大小工程相繼施工。這是淮河上游薄山水庫建築攔河大壩的工地。

Projects, large and small, on the whole Huai River basin are being carried out one after another under a unified plan. Picture shows the construction site of the reservoir at Poshan on the upper reaches of the Huai River.

爲利用水庫的蓄水進行灌溉，又修建了白沙灌溉渠，現第一期工程已竣工，這是開閘放水的情況。

The Paisha Reservoir was completed in the first year of the Huai River harnessing work. For the utilization of stored water for irrigation purposes, the Paisha Irrigation Canal is also under construction (the first-period construction has already been completed). Picture shows a gate discharging irrigating water.



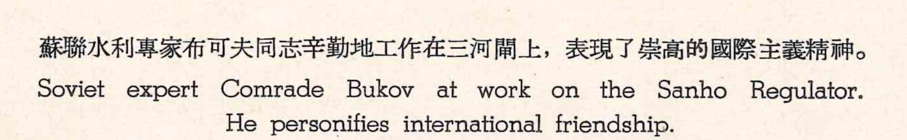


在治淮的第一年內，人們僅用一百天的時間就完成了如此巨大的潤河集分水閘，由於它的控制作用，可使正陽關以下的淮河洪水不超過設計流量。

In the first year of the Huai River harnessing work, it took only a hundred days to complete the gigantic Jenhochi Regulator. Through its operation, the flood discharge of the Huai River below Chengyangkwan is kept below the design figure.

洪澤湖是淮河上一個較大的湖泊，今天要控制它成爲蓄水庫。

The Hungtze Lake, one of the bigger lakes on the Huai River, is being turned into a storage reservoir by the construction of control works.



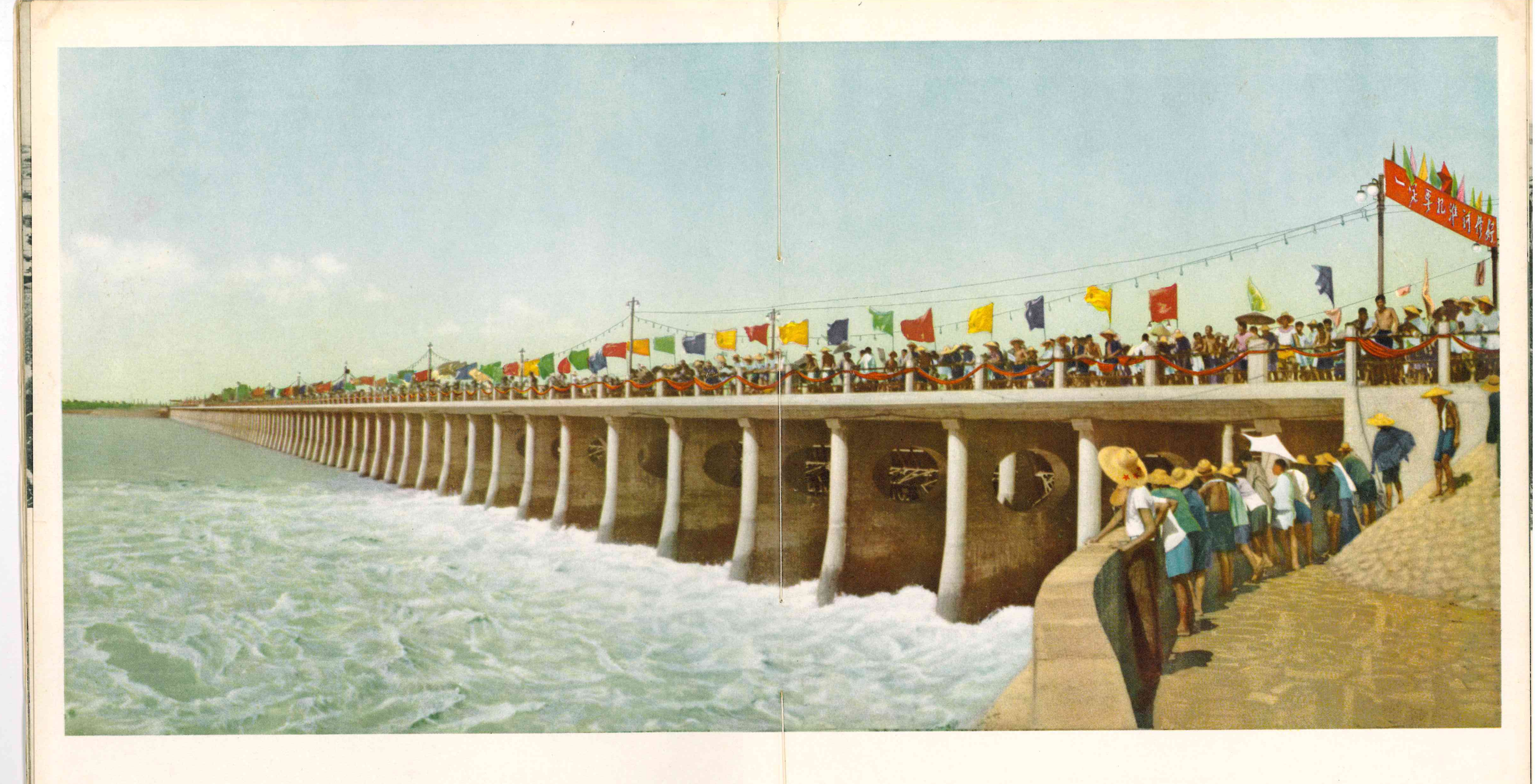
蘇聯水利專家布可夫同志辛勤地工作在三河閘上，表現了崇高的國際主義精神。

Soviet expert Comrade Bukov at work on the Sanho Regulator. He personifies international friendship.

當夜幕降臨的時候，長達七百公尺、高達十公尺、共分六十三孔的三河閘，懸掛着紅綠彩燈，如一條火鍊般放射光芒，照耀着蘇北人民幸福的未來。

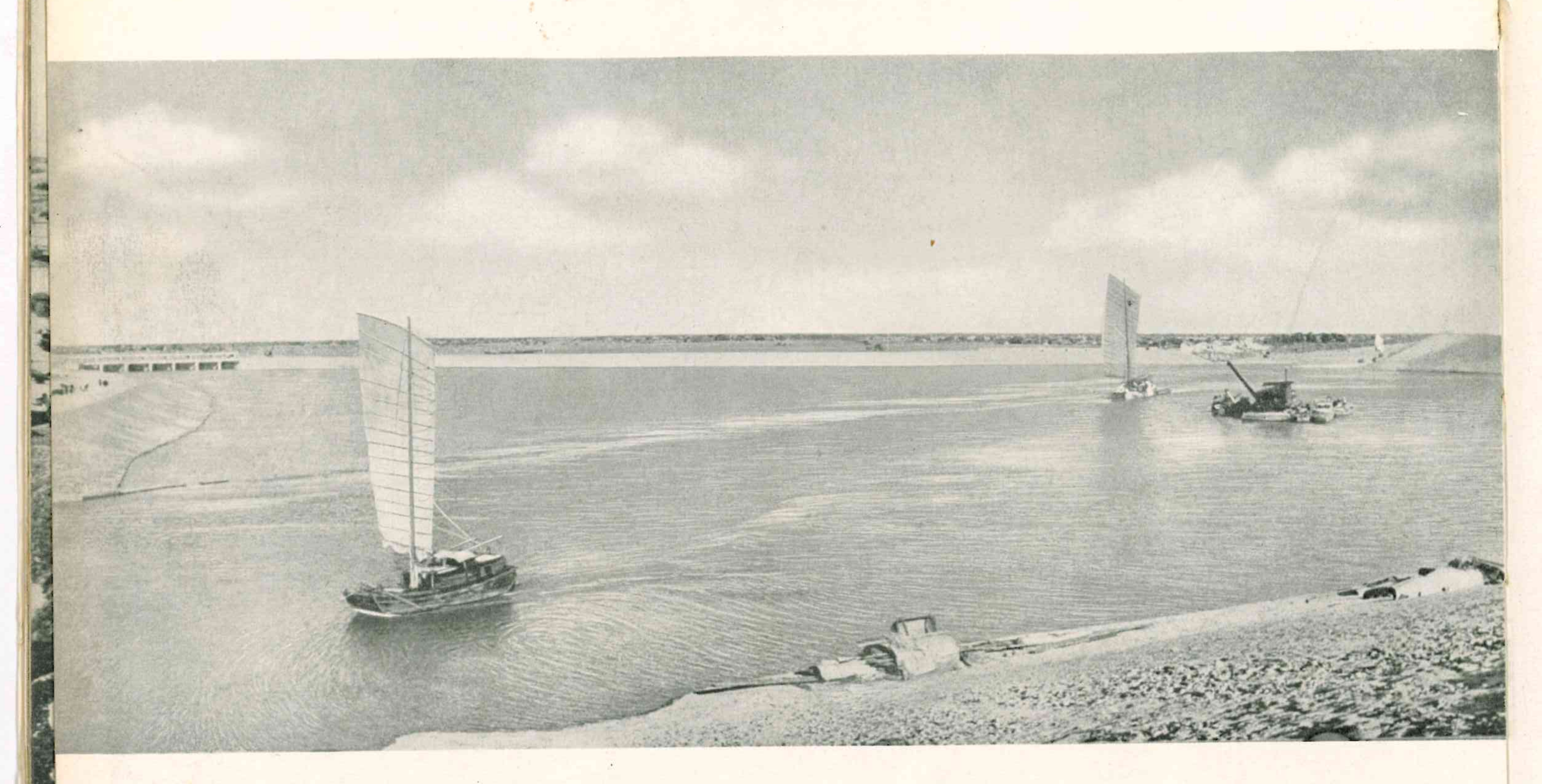
A night scene of the Sanho Regulator, which is 700 meters in length and 10 meters in height and has 63 openings. The illuminated structure sending out beams of light symbolizes happiness of the people in Northern Kiangsu in the future.





淮河上第一座大閘——三河閘建成了。它控制着淮河從洪澤湖入江的流量，是淮河防止水災並發展蘇北航運和灌溉的樞紐。今天它巍然屹立在洪澤湖入江咽喉的三河口，人們給他披上盛裝，開會慶祝。

The Sanho Regulator, the biggest of its kind on the Huai River now completed, controls the flow from the Hungtze Lake to the Yangtze River and occupies a key position in flood control and in the development of river navigation and irrigation in Northern Kiangsu. Picture shows the celebration of its completion.



西自洪澤湖東到黃海濱、長達一百七十公里的蘇北灌溉總渠，是在平地上開挖出來的。洪澤湖的蓄水，通過它流向黃海，流向裏運河，流向通揚運河和串場河，形成二千五百萬畝大灌溉區的總幹渠。

The Northern Kiangsu Main Irrigation Canal, excavated in level ground, is 170 km. in length. It coveys the stored water in the Hungtze Lake to irrigate 25 million *mou* of land.

在蘇北灌溉總渠的渠首，建立了高良澗進水閘；旱時引洪澤湖水去灌溉田園，汛期排洪澤湖水入海。人民歌唱着：「淮河水向東流，幸福就在眼前頭。」

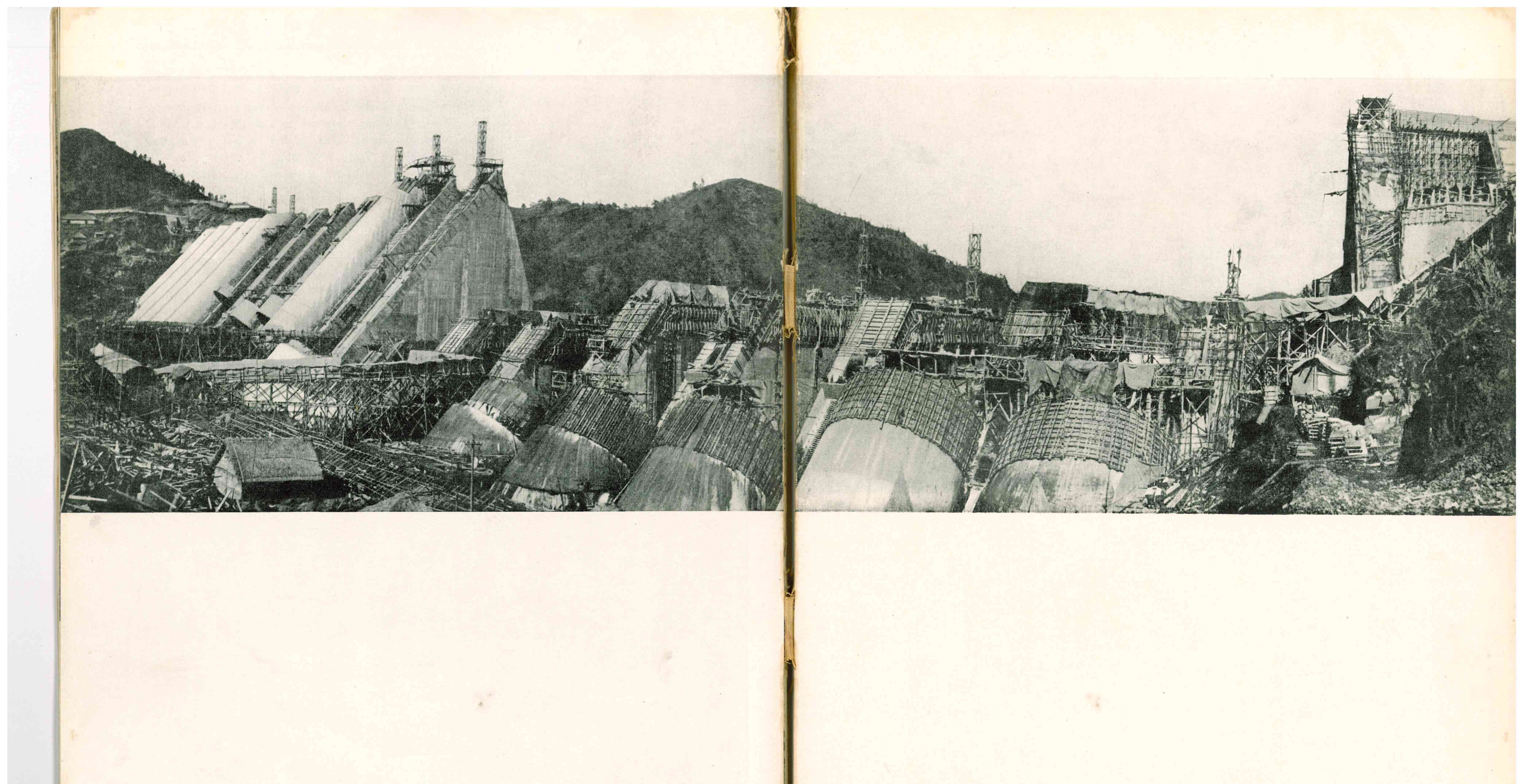
The Kaolingchien Intake Gate, constructed at the head of the Northern Kiangsu Main Irrigation Canal, regulates the water for irrigation during the dry season and discharges flood water into sea during the flood season. People sing: "The water of the Huai River flows eastward, and happiness is in sight."



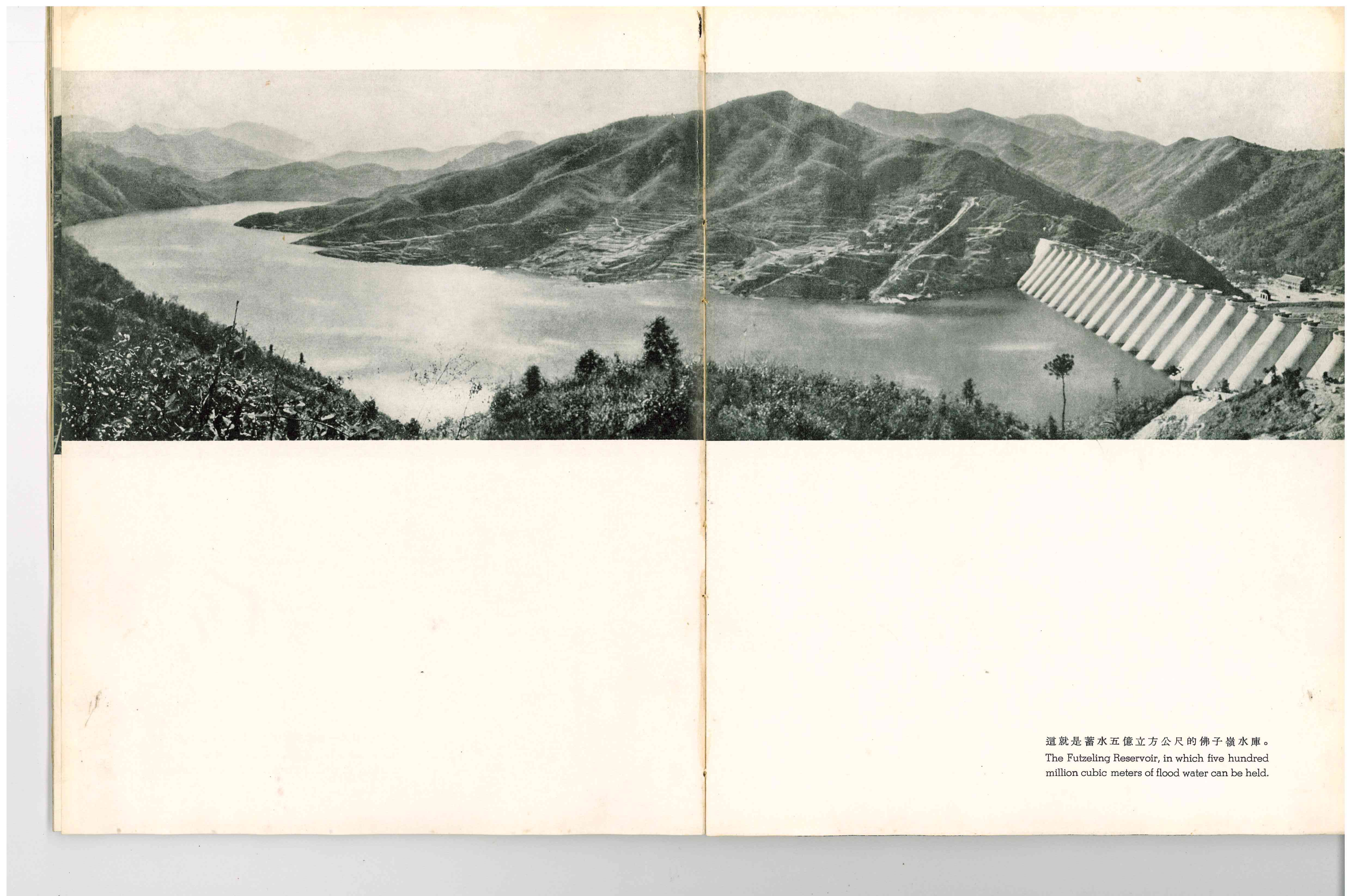
灌溉總渠建立了很多如此壯觀的節制閘，以控制水流，灌溉蘇北大平原，所以人們說：「渠是幸福渠，閘是聚寶閘。」
Many impressive-looking regulators like this one have been constructed on the main irrigation canal to regulate the flow of water that irrigates the vast plain of Northern Kiangsu. People call this canal the "Canal of Happiness" and call these gates "Treasure Gates".

萬山環抱、崗巒起伏的淮河中上游，給人民展示出興建水庫蓄洪興利的廣闊圖景。佛子嶺水庫就建在這一淮河支流淠河上游的大別山的峽谷裏。
The hilly upper and middle reaches of the Huai River offer a panorama of building reservoirs to store flood water and develop water resources. This is the Futzeling Reservoir located beneath the Tapie Mountains in a gorge on the Pi River, one of the tributaries of the Huai River.



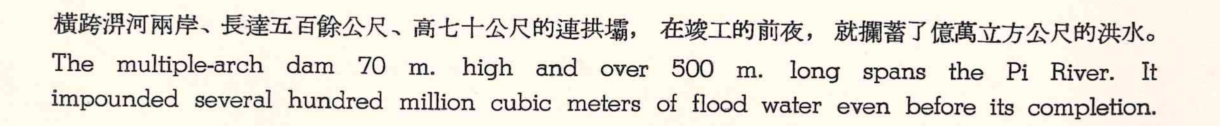


佛子嶺水庫於一九五二年開始全面施工了。圖示施工全景。
The construction of the Futzeling Reservoir began in 1952. Picture shows the entire construction site.



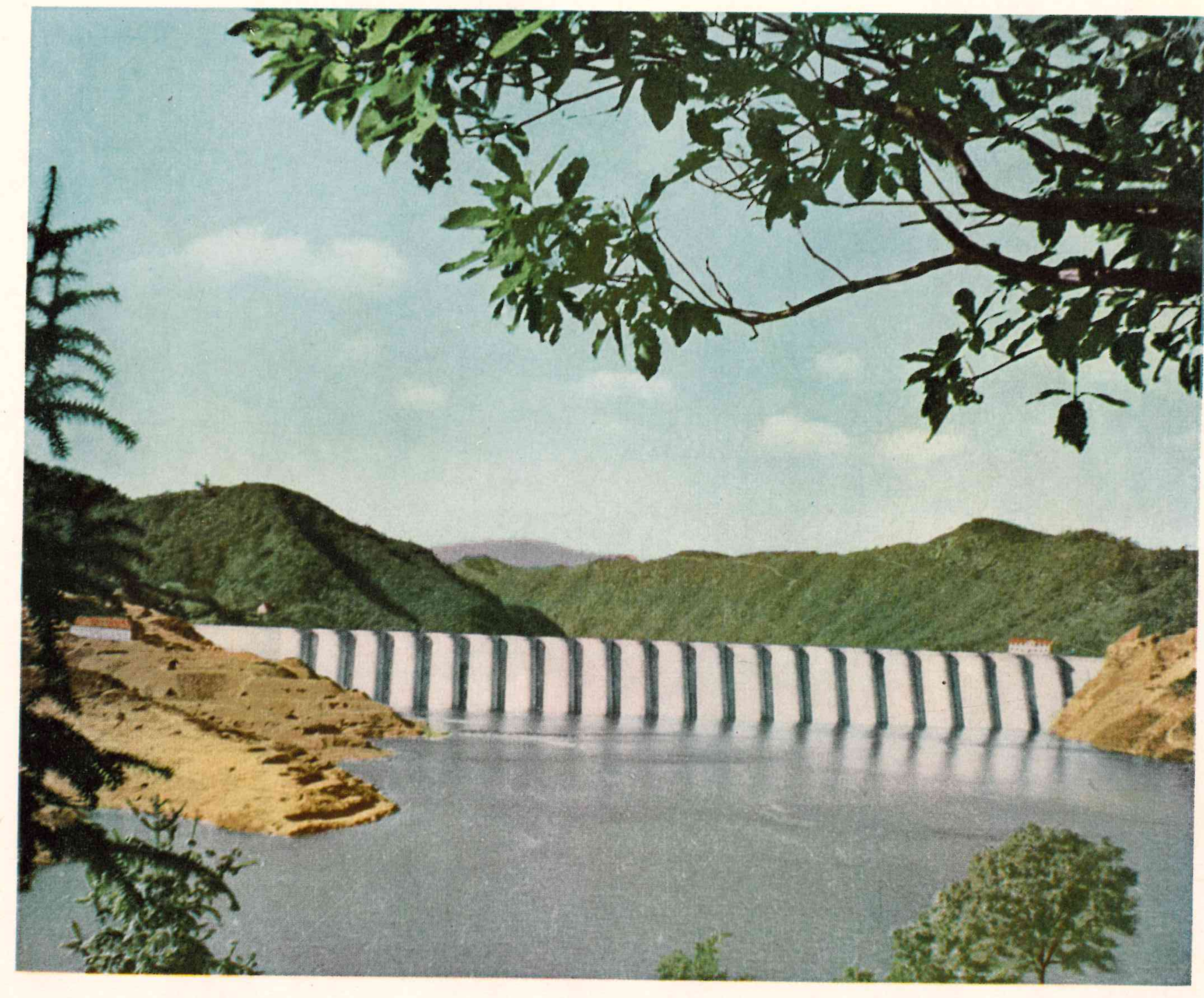
這就是蓄水五億立方公尺的佛子嶺水庫。

The Futzeling Reservoir, in which five hundred million cubic meters of flood water can be held.



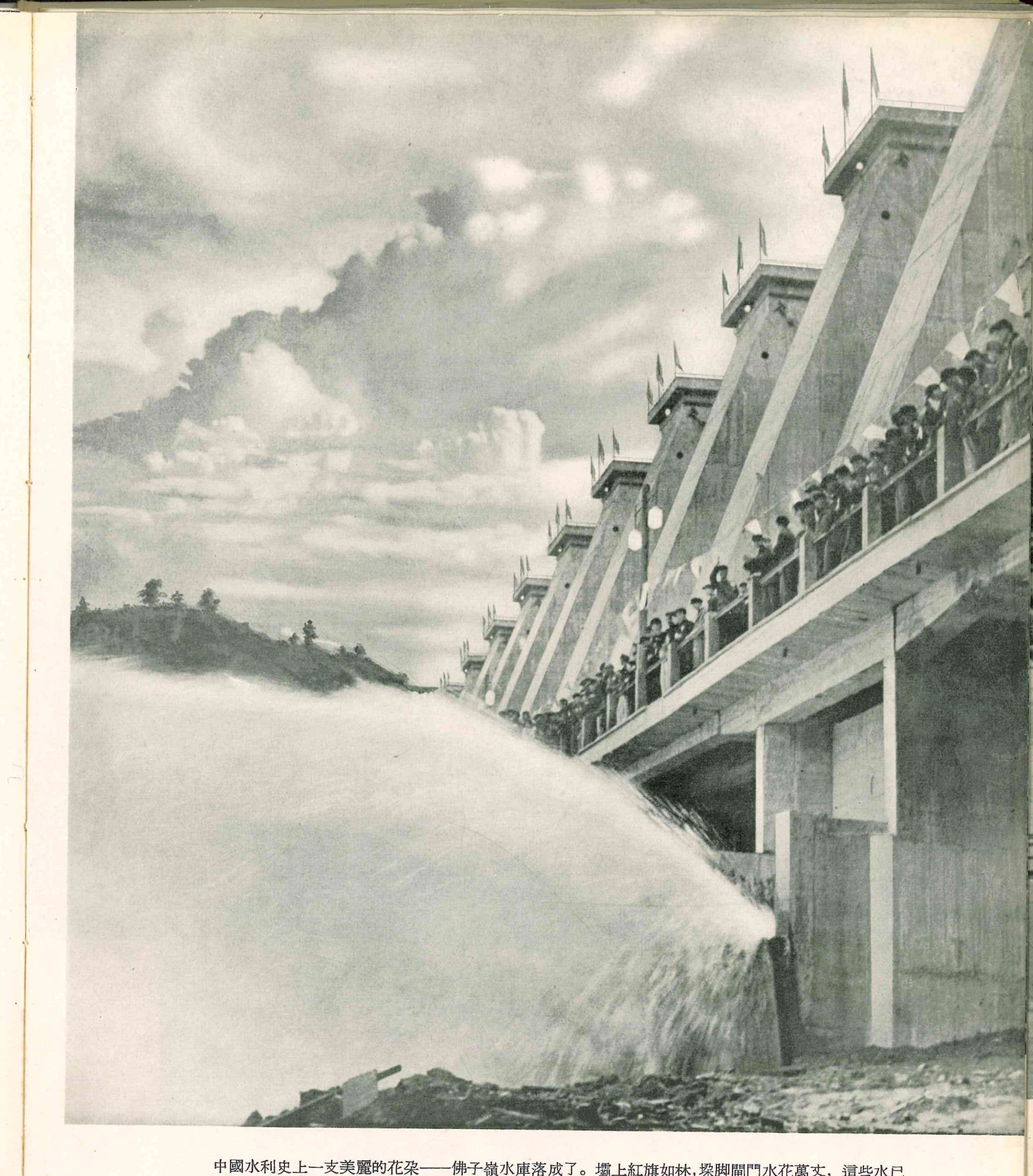
橫跨淠河兩岸、長達五百餘公尺、高七十公尺的連拱壩，在竣工的前夜，就攔蓄了億萬立方公尺的洪水。

The multiple-arch dam 70 m. high and over 500 m. long spans the Pi River. It impounded several hundred million cubic meters of flood water even before its completion.



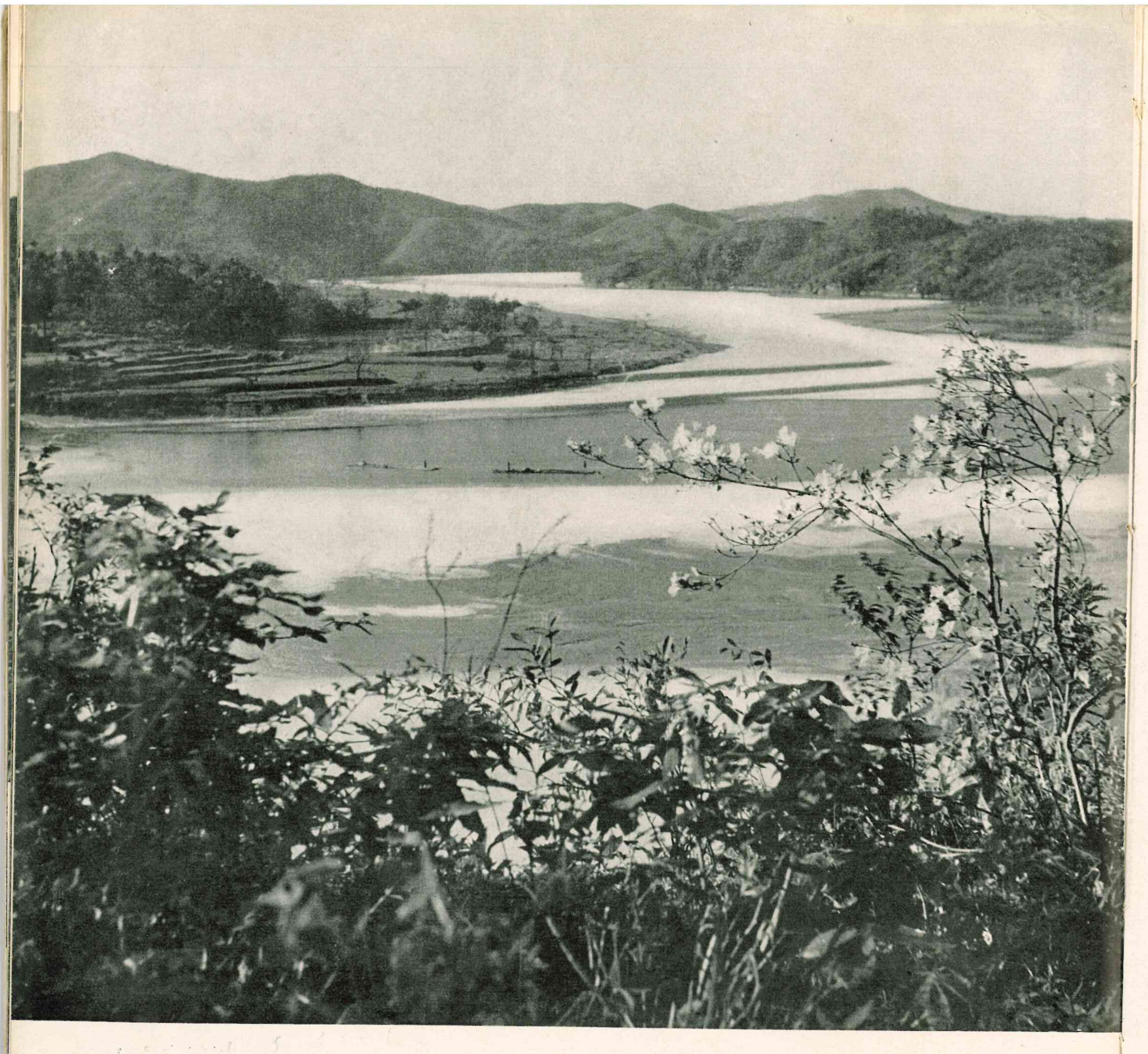
興工於一九五二年、竣工於一九五四年的美如詩畫的佛子嶺水庫遠眺。

The Futzeling Reservoir, the construction of which began in 1952 and was completed in 1954, presents a scene as beautiful as poetry.



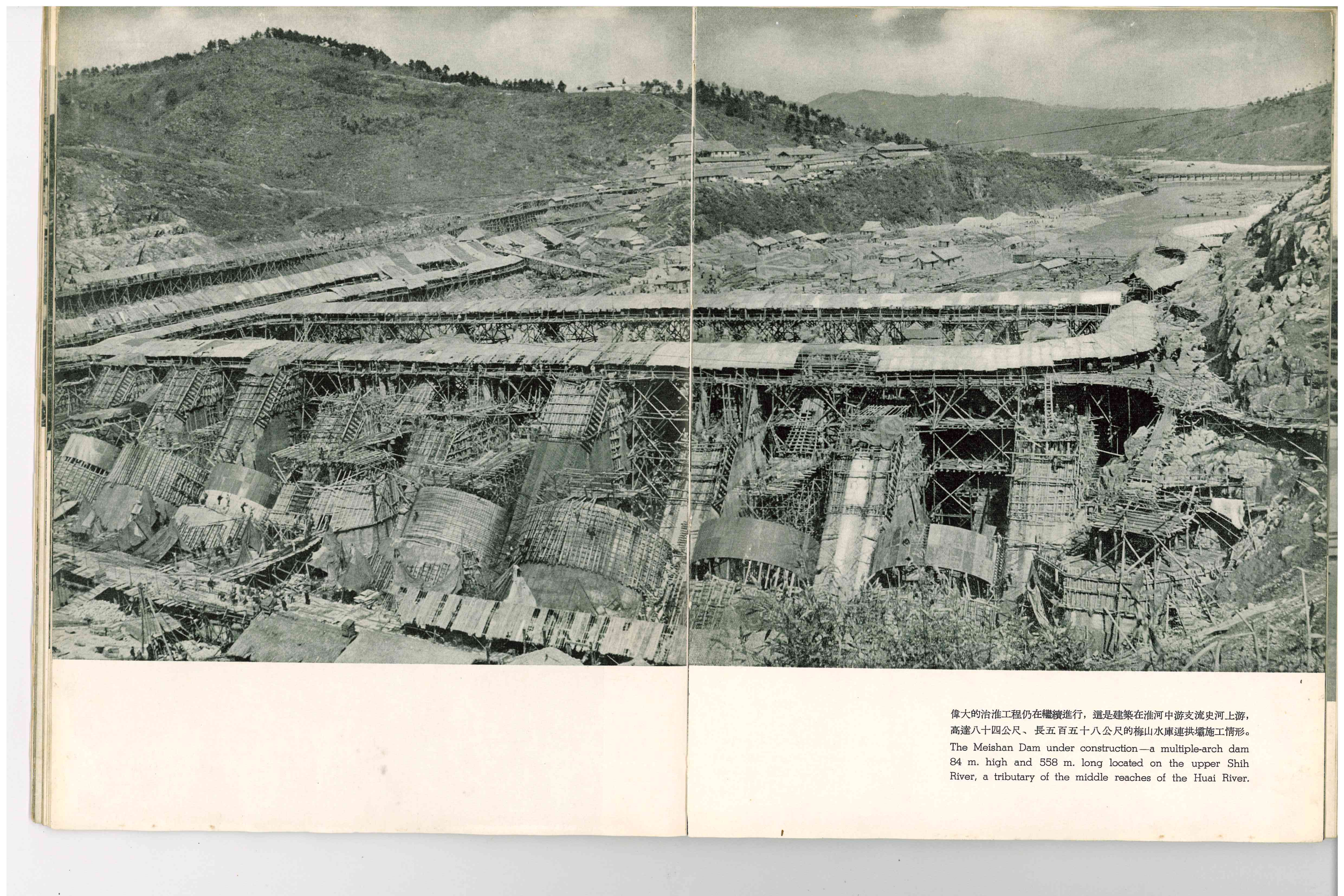
中國水利史上一支美麗的花朵——佛子嶺水庫落成了。壩上紅旗如林，𣑽脚閘門水花萬丈，這些水已不再爲害人民，而是人民幸福的源泉了。今天賓客雲集，典禮開始，大別山的人們正在歡欣鼓舞。

A jewel in Chinese hydraulic engineering history—the Futzeling Reservoir. Picture shows a scene during the inauguration celebrations.



淮河一大支流——史河。
The Shih River—an important tributary of the Huai River.

大別山萬山重重，史河經此奔流而過，梅山水庫就築在這一美麗的峽谷裏。
The site of the Meishan Reservoir in a beautiful gorge on the Shih River.

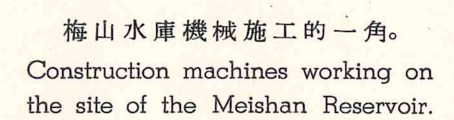


偉大的治淮工程仍在繼續進行，這是建築在淮河中游支流史河上游，高達八十四公尺、長五百五十八公尺的梅山水庫連拱壩施工情形。

The Meishan Dam under construction—a multiple-arch dam 84 m. high and 558 m. long located on the upper Shih River, a tributary of the middle reaches of the Huai River.



梅山水庫的建築者——一羣青年大學生在忘我地工作着。
Builders of the Meishan Reservoir—a group of young undergraduates working selflessly on the site.



梅山水庫機械施工的一角。
Construction machines working on the site of the Meishan Reservoir.

一九五三年開工的淮河上游南灣水庫，正進入緊張施工階段。 人們正在不分晝夜地工作着。

The construction of the Nanwan Reservoir on the upper reaches of the Huai River which began in 1953, is now being carried on in full swing day and night.

梅山水庫是目前治淮工程中一座最大的水庫，能蓄水二十一億立方公尺，發電二萬四千瓩，灌溉農田六十四萬畝。 它在一九五五年汛期就已攔蓄了洪水。 全部工程不久即可完成。

The Meishan Reservoir is the largest one on the Huai River harnessing project. It will hold 2,100 million cub. m. of water, has a hydro-electric capacity of 24,000 kw. and will irrigate 640,000 *mou* of land. It actually controlled flood water during the flood season in 1955. Its construction will soon be completed.



南灣水庫第一期工程已告一段落，全部工程完成後可蓄水九億一千萬立方公尺，灌溉農田三十萬畝。它在一九五五年汛期曾一度攔蓄二億多立方公尺洪水。圖爲水庫放水時農民趕來參觀的情形。

The first-period construction of the Nanwan Reservoir has already been achieved. When completed, the reservoir will hold 910 million cub. m. of water and irrigate 300,000 *mou* of land. It had held more than 200 million cub. m. of flood water during the flood season of 1955. Picture shows how the farmers came to see the dischanging of reservoir.

治淮工程中興建了許多這樣防洪排水用的小型涵閘。

Many like this one have been constructed in the Huai River basin.



河道整理工程是根治淮河的主要部分，無數的挖泥機船正在疏浚着淮河河道。

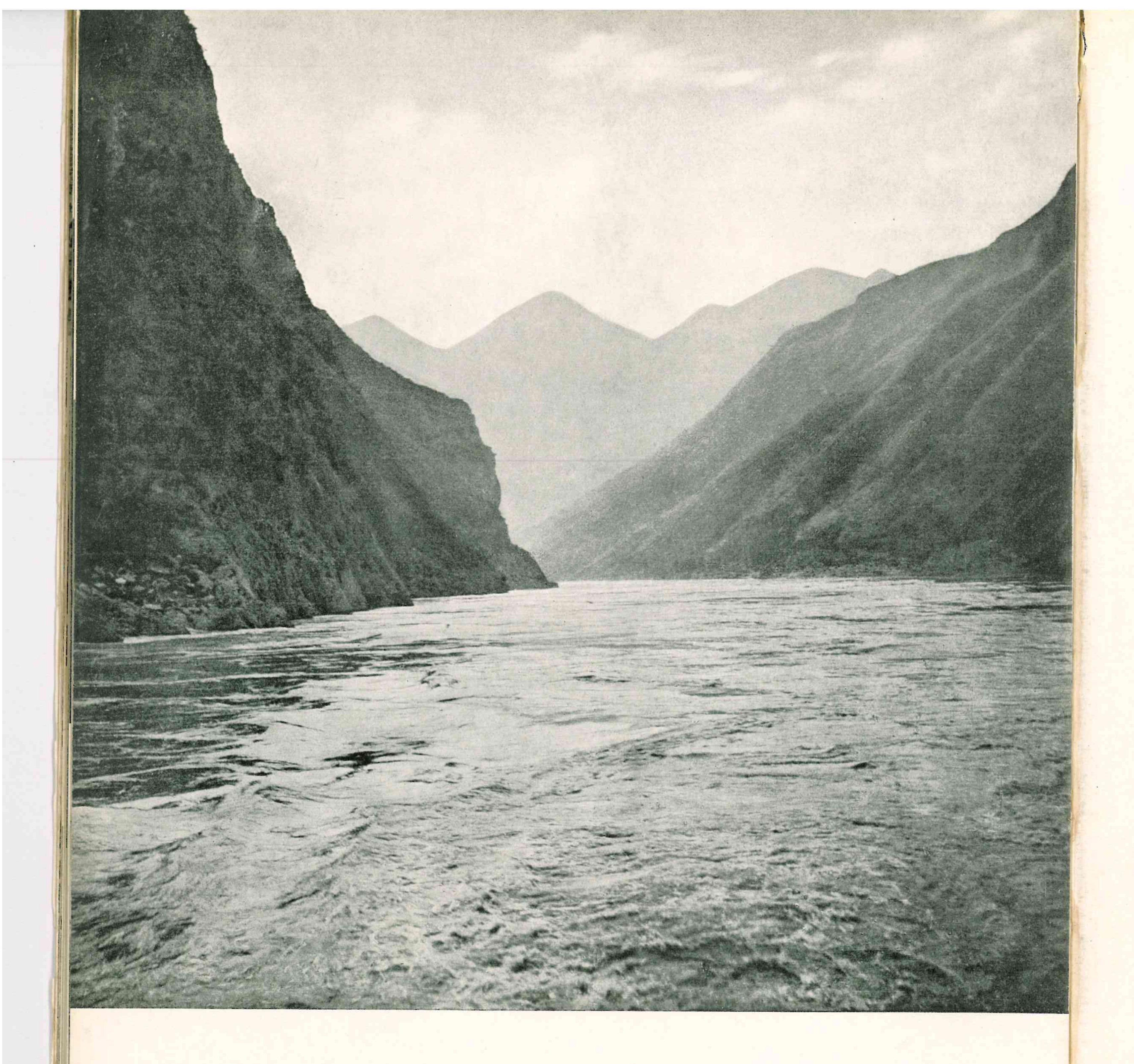
Channel improvement forms an important part of the Huai River project. Many dredges are at work.





淮河幹支流上建立了許多船閘。這是潤河集船閘行船一瞥。

Picture shows the Jenhochi Navigation Lock. Many like this one have been constructed on the Huai River.



景色戀人聞名世界的長江三峽，它蘊藏着豐富的水力資源。
Lovely scenery of the world-famous Three Gorges of the Yangtze—a source of abundant hydraulic resources.

長江與荆江分洪工程

長江是我國第一大河，發源於青海高原，橫穿雲南、四川等八省，由吳淞口注入東海，構成我國中部橫貫東西的重要交通命脈。長江幹流全長五千五百餘公里，流域面積約一百八十萬平方公里。流域年雨量一千至二千公厘，分配比較均匀，年平均流量與全年最大洪峯流量的比差較小。大部地段河槽深大，能安全宣洩大量洪水，所以幹流災害較少。

長江是我國的巨大富源，這是不言而喻的。它有聞名中外的險峻的「長江三峽」，水量極富，落差很大，蘊藏着豐富的水電資源。江水流出三峽後，緩和平靜，河槽深闊，支流縱橫，湖泊星羅，旣利灌溉，又利生產，所以自古就有「富甲江南」之稱。不過它的全面開發，應隨着我國工業化的進展而進行。幾年來，我們大力進行了堤防培修，並積極進行根治與開發長江的準備工作。

長江中游的荆江段河道自然地構成了狹窄、彎曲的不利情況；汛期不但洪水宣洩困難，水位還往往超出地面十餘公尺，堤防時呈險象，嚴重地威脅着江漢平原三百餘萬人民、八百餘萬畝農田的安全和生產。

爲了改變這一情况，一九五二年修建了荆江分洪工程，這個工程利用荆江以南、虎渡河以東、安鄉河以北的低窪地帶建立分洪區，以分蓄長江洪水五十餘億立方公尺，降低長江水位。這樣，就基本上解除了荆江大堤潰決的威脅。這個工程包括進洪閘和節制閘，進洪閘長一千零五十四公尺，共五十四孔；節制閘長三百三十六公尺，共三十二孔；從開工到完成只用了七十五天時間。這是中國勞動人民的偉大創造。

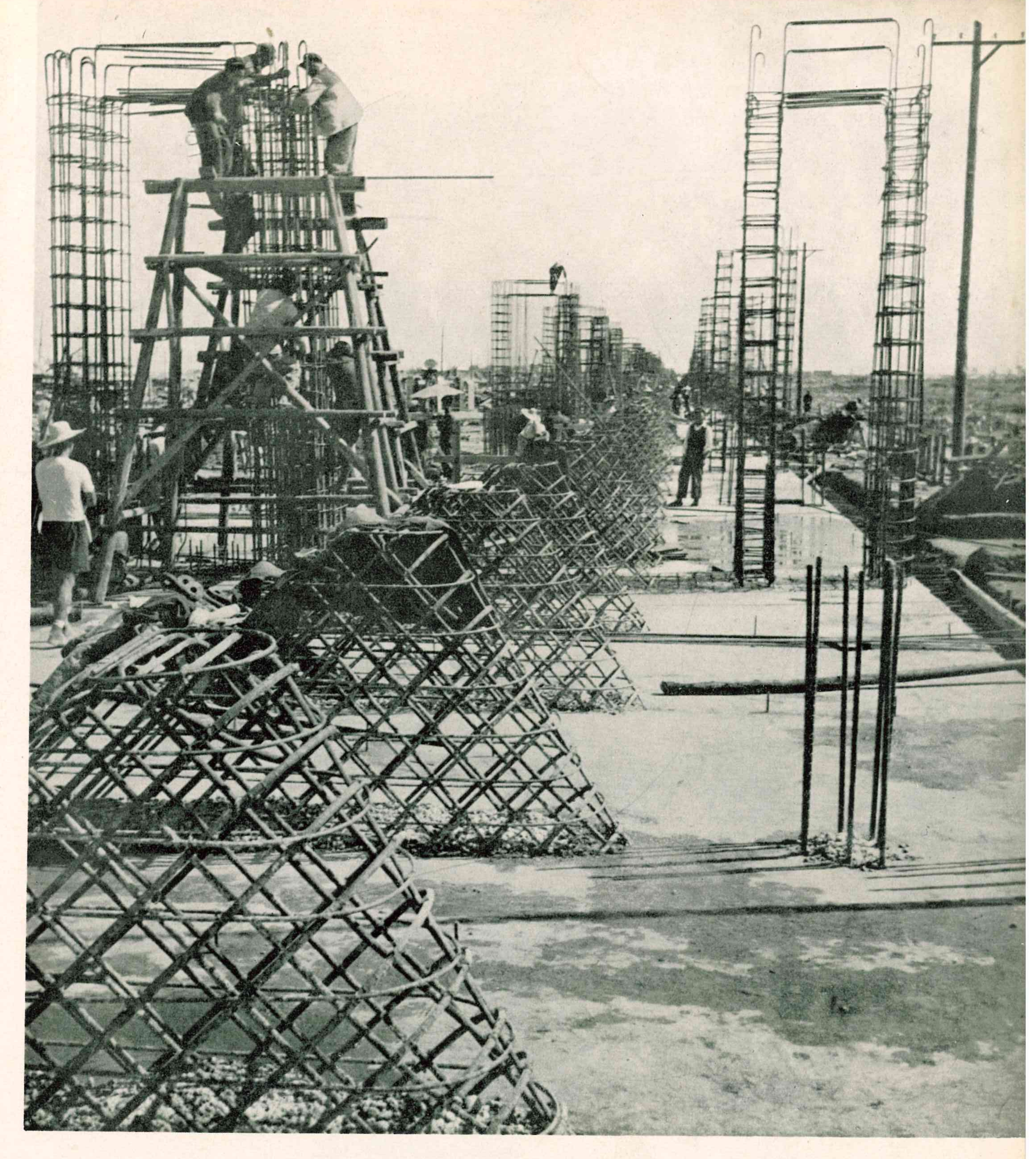
THE YANGTZE RIVER AND THE CHINKIANG FLOOD DIVERSION PROJECT

The Yangtze River tops the list of China's rivers. It has its origin in the Chinghai plateau, traverses eight provinces and finally empties itself into the Eastern Sea at Wusungkow, forming a vital east-west communication line across the country. Its main course totals over 5,500 km. in length, and has a drainage area of approximately 1,800,000 sq. km. Mean annual precipitation in the basin varies from 1,000 to 2,000 mm., the seasonal distribution being fairly even and the ratio between annual mean discharge and annual flood peak being moderate. The major part of the main course has ample channel capacity to take care of flood water, therefore flood damages along the main course have not been very frequent.

It goes without saying that the Yangtze River presents endless possibilities for development. It has the world-famous Three Gorges, through which a tremendous amount of water flows with a considerable fall of elevation, thereby forming an abundant water power potential. After leaving the Three Gorges, the river flows tranquilly through a wide and deep water course with numerous tributaries and lakes, and thus provides facilities for irrigation and various means of production. That is why since time immemorial the Yangtze Valley has always been the richest territory in China. However, its systematic development should keep in pace with the progress of nation's industrialization. During the past few years, much effort has been spent on the improvement and strengthening of the dike system, and much attention has been paid to the preparatory works for the permanent control and the exploitation of the river.

The Chinkiang is a section on the middle part of the Yangtze. Being narrow and very crooked, it used to present serious difficulties to the discharge of flood water during the flood season, while its water stage often rose to more than ten meters high above the ground level, thus endangering the dike and seriously threatening the safety of a population of more than three million and the production on more than eight million *mou* of farmland.

The Chinkiang Flood Diversion Project was carried out in 1952 as a remedy to this situation. This project turned the lowland located south of the Chinkiang, east of the Hutu River and north of Anhsiang River into a diversion basin, into which more than 5,000 million cub. m. of Yangtze flood water could be diverted so as to lower the Yangtze water stage and prevent the Chinkiang Dike from breaking. This work comprising of a gate with 32 openings and 336 m. in length and another gate with 54 openings and 1,054 m. in length was completed in a brief period of 75 days. It represents a notable engineering success of the Chinese people.



爲了減輕長江洪水對荆江大堤的威脅，長江荆江段建立了長達一千零五十四公尺、共有五十四孔的新中國第一座大閘。 這是荆江分洪進洪閘緊張施工時的情況。

The Chinkiang Diversion Gate under construction. This 54–opening structure, 1,054 m. in length, is built for mitigating the flood threat on the Chinkiang levee.

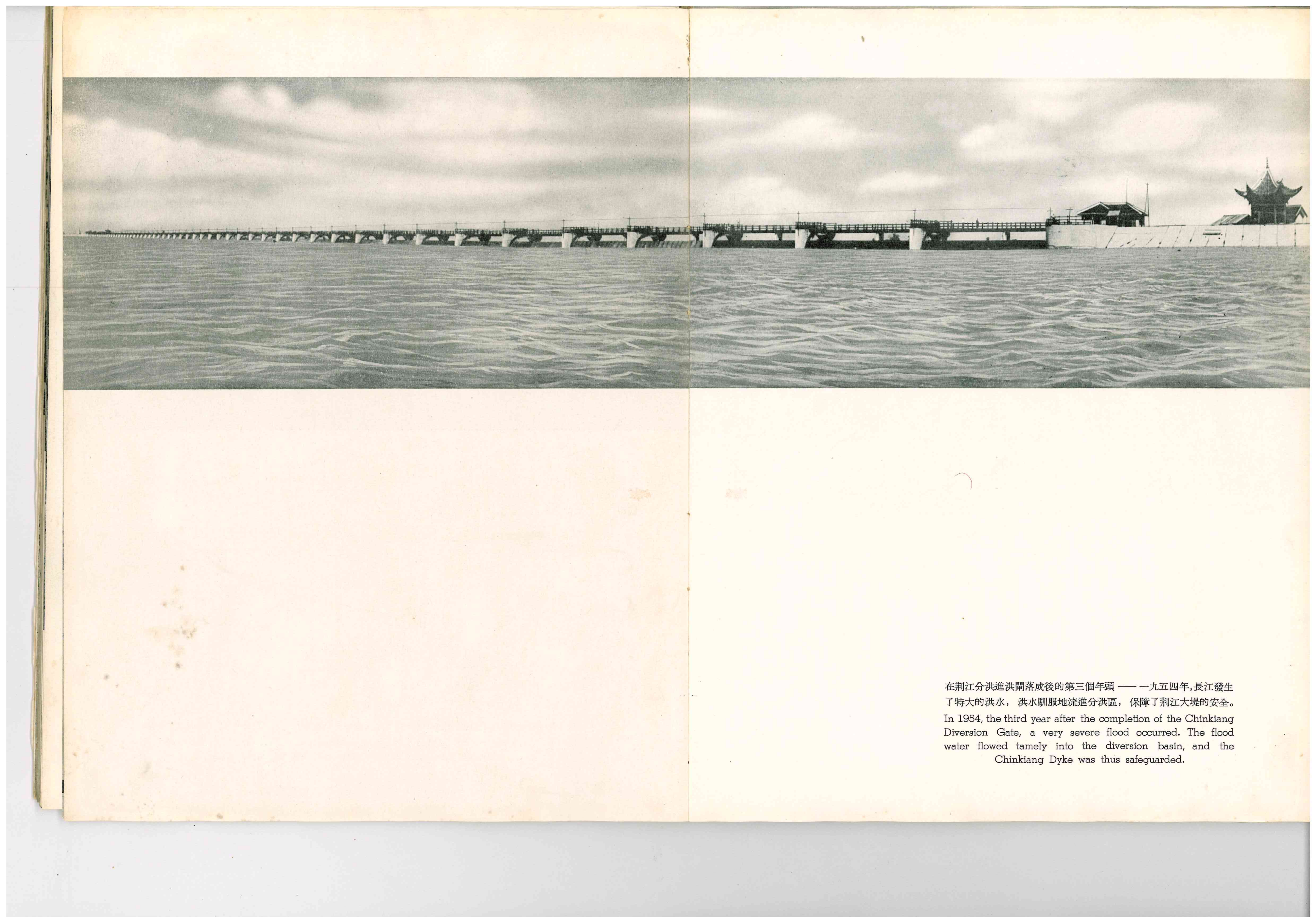
在七十五天的時間內，就完成了這樣一座大水閘。

This huge regulator was built in seventy-five days.



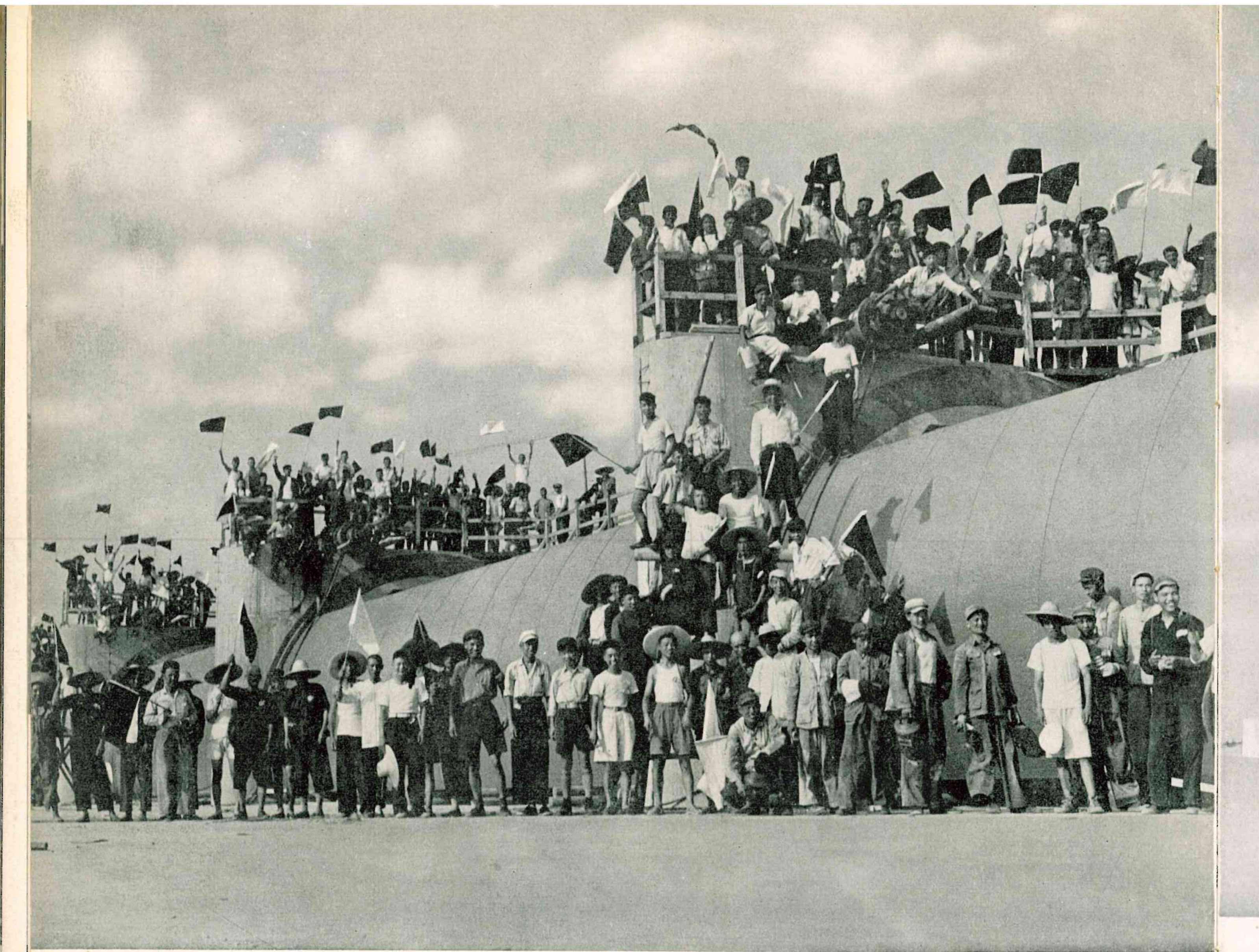
爲了全部控制荆江分洪，與興建進洪閘的同時，又修建了一座三十二孔、長三百三十六公尺的節制閘。

For the complete control of the Chinkiang Diversion, a 32-opening regulator, 336 m. in length, has been built together with the flood-inlet gate.



在荆江分洪進洪閘落成後的第三個年頭 —— 一九五四年,長江發生了特大的洪水, 洪水馴服地流進分洪區, 保障了荆江大堤的安全。

In 1954, the third year after the completion of the Chinkiang Diversion Gate, a very severe flood occurred. The flood water flowed tamely into the diversion basin, and the Chinkiang Dyke was thus safeguarded.



荆江分洪進洪閘落成於一九五二年。無數建築者在歡呼勝利。
People who built the Chinkiang Diversion Gate hailed their success after its completion in 1952.



荆江分洪進洪閘工程的完成，標誌着工、農、兵（部分中國人民解放軍參加了這一建築工程）及全體建築者的團結和勝利。
The victorious completion of the Chinkiang Flood-inlet Gate signifies the unity of labourers, farmers, soldiers and all who participated in the construction.



都江堰上的竹索橋。都江堰巧妙地引岷江水流，通過千百條人工渠道，使川西平原上十四個縣市、三百餘萬畝農田受到了灌溉。

The bamboo-cable bridge over the Tukiang Weir. In an ingenious way the water of the Min River is diverted by the Tukiang Weir into thousands of canals and ditches to irrigate over three million *mou* of farmland in fourteen *hsien* on the western plain of Szechuan.



長江支流岷江上游的都江堰，是二千二百多年前我國古代勞動人民創造和智慧的結晶。

The Tukiang Weir was built 2,200 years ago on the upper reaches of the Min River, a tributary of the Yangtze. In this structure crystallized the creative labour and wisdom of the ancient people.



都江堰灌溉工程是李冰和他的兒子李二郎領導勞動人民興建的。圖爲後代人們爲了紀念李冰父子而修建的二王廟。

The Tukiang Weir was built for irrigation purposes many centuries ago by labouring people under the guidance of Li Pin and his son. Picture shows a temple erected to the memory of father and son.



黃河是一條自古以來聞名中外的害河，經常氾濫決口。
The Yellow River is known the world over as one of the most disastrous and catastrophic rivers.

黃河的過去和現在

黃河是世界上著名的河川之一，發源於我國西部青海高原，流經甘肅、內蒙、山西、陝西、河南、山東等七個省區而入渤海。全長四千八百四十五公里，流域面積七十四萬五千平方公里。

黃河流域是我國民族文化發展的搖籃。物產衆多，蘊藏着豐富的資源。

歷史上的黃河是一條多災多難的河流。在過去的三千多年中，決口氾濫卽達一千五百餘次，其中改道卽有二十六次。特別是一九三八年蔣介石反動政府罪惡地炸開河南鄭州黃河大堤，黃水淹沒了河南、安徽、江蘇三省數十縣，死了無數的老百姓，同時還把淮河水系破壞了。

從一九四六年黃河下游地區解放時起，中國人民就開始進行黃河的治理。幾年來堤防加高培厚，共做了土工一億三千餘萬立方公尺，長達一千八百公里的大堤，一般都超過一九三三年最高洪水位（有水文紀錄以來的最大一次洪水）一至三公尺。同時，還作了防險和護岸工程四千八百六十六處。沿河羣衆在政府號召下，植樹一千多萬株，植草六千多萬叢，對堤防進行了周密的管理養護。爲了防止黃河在異常洪水情況下決口、改道，還做了北金堤和東平湖等滯洪、蓄洪工程。通過這些工程和防汛的努力，從一九四七年至一九五五年的九年間，黃河雖然曾經發生多次巨大的洪水，都沒有造成嚴重的災害。

黃河流域是我國主要的農產區之一，盛產棉花和小麥，但由於雨量不勻，農作物常遭旱災。過去引黃河水進行灌溉的只限上、中游地區，下游各省從來沒有引用黃河水流灌溉的習慣。一九五二年在河南興建了引黃灌溉濟衛工程，可以灌溉農田七十二萬畝，同時，還可改善新鄉至天津間的航道運輸。這是黃河下游引黃灌溉的創舉。

根治黃河水害和開發黃河水利的綜合規劃，已經編製完成，並經全國人民代表大會第二次會議通過，計劃規定於數十年內在黃河幹流上修建四十六座攔河壩，從而把黃河改造成爲梯河，同時在支流上興建水庫若干座，用以蓄洪、攔沙、調節水流並發展灌溉、航運、發電、工業用水等事業。

這樣，黃河的洪水災害可以完全避免，水流將逐漸變清。同時利用水力發電二千三百萬瓩、灌溉農田一億一千六百萬畝，黃河幹流從貴德以下直到海口將可以通航，三十七萬平方

公里的黃土高原將變爲美麗富饒的地方。

在一九六七年以前實施第一期工程，當本期工程完成時，黃河的自然面貌即將發生很大變化；嚴重威脅中國人民的黃河洪水災害將一去不復返了。在黃河幹流上將出現兩座一百萬瓩的大水電站，支流上將出現十幾座攔河壩和水庫，大量的電流將供應甘肅、陝西、山西、河南等省正在建立起來的工業基地；幹流上將出現三座灌溉引水壩，灌溉土地的面積將比現在黃河流域已有的大出兩倍；黃河將由一條基本上不通航的河流，開闢出一千八百公里長的航道；冲刷嚴重的黃土高原將變爲林木葱茂、綠草如茵和農產豐盛的地區了。

征服黃河是中國人民幾千年來所追求的理想。現在，在中國共產黨和毛主席的領導下，這個理想在高得多的水平上即將實現了。全中國人民都抑制不住內心的喜悅和歡騰，正在以辛勤的、積極的勞動，爲實現這個偉大的計劃而努力奮鬥。

THE YELLOW RIVER, PAST AND PRESENT

The Yellow River (or the Huang Ho) is one of the world's best-known rivers. It traverses from the Chinghai plateau to the Gulf of Hopei through seven provinces, having a total length of 4,845 km. and a drainage area of 745,000 sq. km.

The Yellow River basin is the cradle of Chinese civilization; it yields numerous and plentiful products and possesses abundant potential resources.

All through the history, the Yellow River had always been a troublesome one causing disasters and catastrophes. During the past three thousand years, there occurred more than 1,500 times of dike-breaking, including 26 cases of course-shifting. Especially in 1938, when the Chiang Kai-shek reactionary regime criminally breached the Yellow River dike at Cheng-chow, scores of *hsien* in Honan, Anhwei and Kiangsu provinces were flooded, and the Huai River system was badly disarranged.

Since the liberation of the lower part of the river basin in 1946, the Chinese people immediately started river improvement work. During the past few years, more than 130 million cub. m. of earthwork have been done in connection with dike strengthening, raising 1,800 km. of dike by one to three meters above the 1933 water mark, which is the highest on the hydrological record. Meanwhile, bank protection work has been done in 4,866 places. In response to the government's appeal, people living along the river have planted more than 10 million trees and 60 million bundles of grass, and have spent much effort in the main-tenance of the dike system. Furthermore, the Pei Chin Ti and Tung Pin Hu detension basins have been constructed in order to prevent the river from breaching and shifting during extremely severe floods. With these works in function and the other efforts in flood protecting, although there occurred many heavy floods in the Yellow River during the nine years from 1947 to 1955, yet no severe damages had been done.

The Yellow River basin, being rich in the production of cotton and wheat, is one of the principal agricultural regions in China, but crops there often suffer from drought owing to the very uneven seasonal distribution of rainfall. During the past, the utilization of Yellow River water for irrigation purposes was limited to the upper and middle reaches, and the provinces lying on the lower reaches had never adopted such a practice. In 1952, the People's Victory Canal was constructed in Honan to divert Yellow River water into the Wei River to irrigate 720,000 *mou* of farmland and to improve the navigation between Hsin-

hsiang and Tientsin. This is a creative work on the lower reaches in the utilization of Yellow River water for irrigation.

A unified development plan of the Yellow River basin has already been compiled, and has been approved by the Second Session of the First National People's Congress. This plan calls for the construction of 46 dams on the main stream within several decades to turn the whole river into a cascade, and also construction of numerous reservoirs on the tributaries for flood control, silt detention, flow regulation, irrigation, navigation, power generation, industrial water supply, etc.

Thus, Yellow River floods will be completely averted, and its water will be freed from silt. Meanwhile, the river will generate 23 million kw. of power and irrigate 116 million *mou* of farmland. The river will be made navigable from Kueiteh down to the sea, and the loess plateau 370,000 sq. km. in area will be turned into a fertile and productive region.

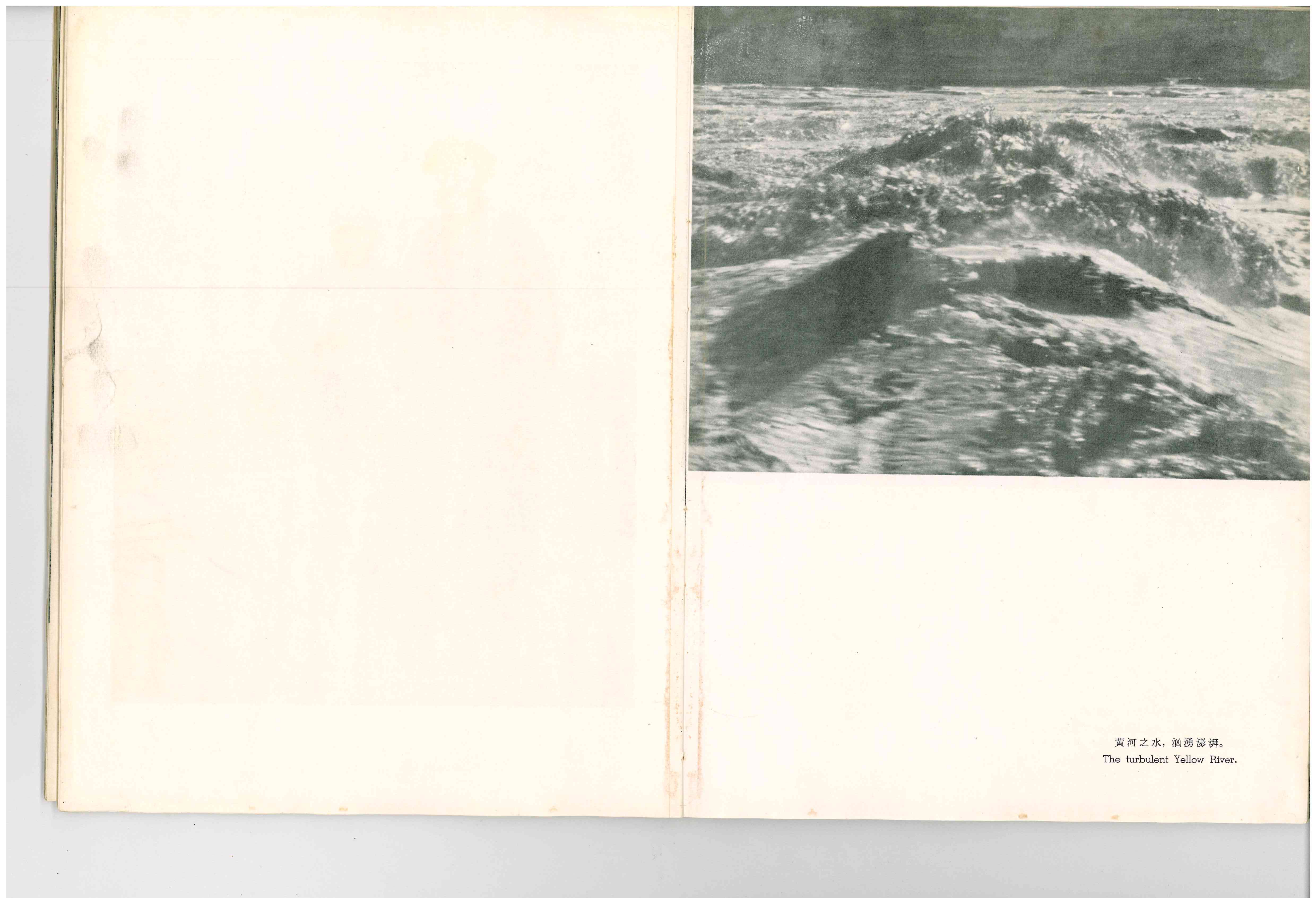
The first-stage construction will be carried out not later than 1967, and its completion will bring about considerable changes to the river. Yellow River floods, which have always seriously threatened the Chinese people, will be gone forever. Two huge hydro-electric stations each with a capacity of one million kilowatts will appear on the main course of the river, and more than ten dams and reservoirs will appear on the tributaries. Industrial bases now being constructed in Kansu, Shensi, Shansi, Honan and other provinces will get ample supply of electricity. Three diversion dams will appear on the river's main course, thus enlarging the present irrigated area threefold. The river, practically unnavigable at present, will have a length 1,800 km. turned into navigable waterway. The now badly eroded loess plateau will be changed into a fully afforestated, verdure-carpeted and highly productive land.

To conquer the Yellow River has for thousands of years been the desire of the Chinese people. Now, under the leadership of the Chinese Communist Party and Chairman Mao, this desire will soon be more than fulfilled. All the people in China with uncontrollable joy in their hearts are throwing themselves into the struggle for the realization of this great plan.



毛主席視察黃河。

Chairman Mao inspects the Yellow River.



黄河之水，汹涌澎湃。

The turbulent Yellow River.



這是一九三三年黃河決口洪水橫流的情形。

Picture shows the devastating floods caused by the overflowing of the Yellow River in 1933.



黃河含沙量是著名世界的，沙的來源就是這種嚴重的水土流失所造成的。

The Yellow River is known to the world for its extremely heavy silt, which results from severe erosion.

黃河沿岸的農民所創造的利用水力提水的天車（又名水輪車），用以灌溉黃土高原上易於乾旱的土地。

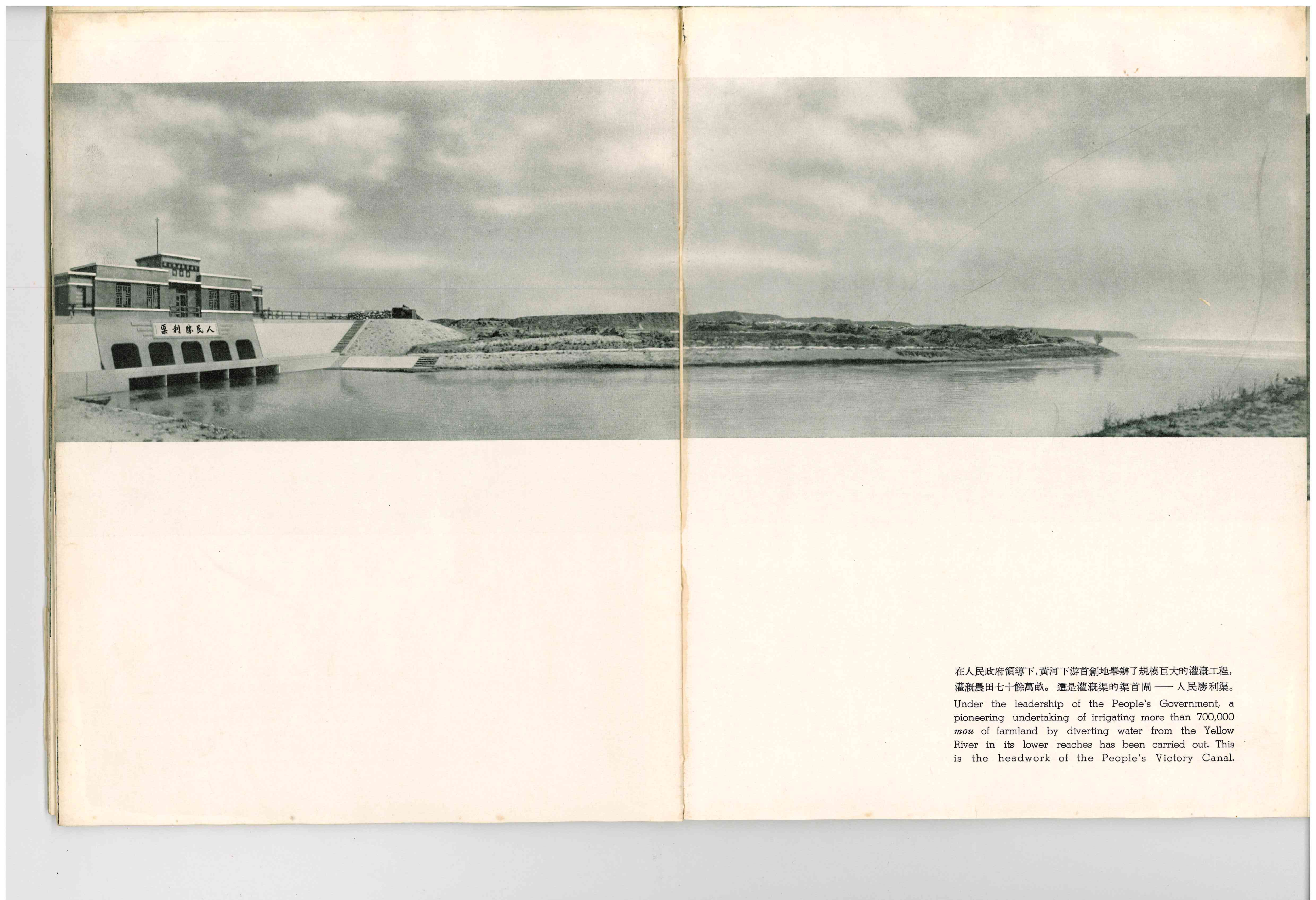
This water-lifting contrivance is an invention by the farmers in the Yellow River basin for irrigating their thirsty land on the loess plateau.





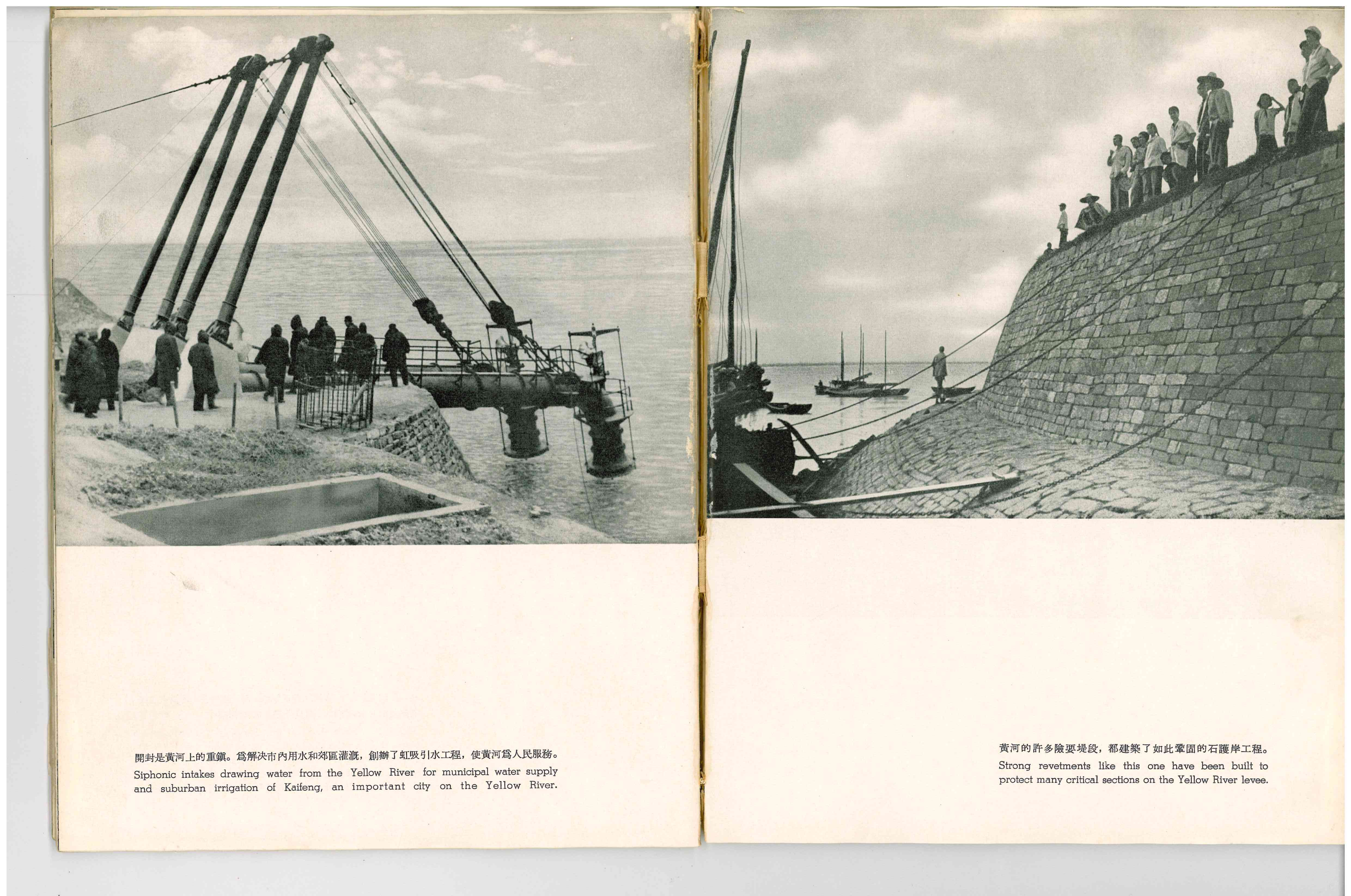
黃河流域的人民，在二千年以前與水旱災害的鬥爭中，就知道開築渠道，取水灌溉。圖為許多灌溉渠中之一的秦渠渠道。

Twenty centuries ago people in the Yellow River basin already learned from their struggle with floods and droughts how to construct canals for irrigation purposes. Picture shows one of the canals dug in the Chin Dynasty.



在人民政府領導下，黃河下游首創地舉辦了規模巨大的灌溉工程，灌溉農田七十餘萬畝。這是灌溉渠的渠首閘——人民勝利渠。

Under the leadership of the People's Government, a pioneering undertaking of irrigating more than 700,000 *mou* of farmland by diverting water from the Yellow River in its lower reaches has been carried out. This is the headwork of the People's Victory Canal.

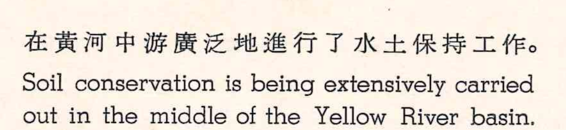


開封是黃河上的重鎭。爲解決市內用水和郊區灌漑，創辦了虹吸引水工程，使黃河爲人民服務。

Siphonic intakes drawing water from the Yellow River for municipal water supply and suburban irrigation of Kaifeng, an important city on the Yellow River.

黃河的許多險要堤段，都建築了如此鞏固的石護岸工程。

Strong revetments like this one have been built to protect many critical sections on the Yellow River levee.



在黄河中游廣泛地進行了水土保持工作。
Soil conservation is being extensively carried out in the middle of the Yellow River basin.

黄河一千八百公里堤防，都在植樹種草，進行着周密的管理養護。
Trees and grass are being planted and systematic maintenance practiced on the Yellow River levee stretching 1,800 km. in length.



根治黃河，已列入了國家水利工作的計劃。大批的黃河查勘隊逆流而上。

The project for the permanent control of the Yellow River has been put on the national hydraulic engineering program. Many surveying teams are travelling up the river to work.

內蒙古自治區引黃河水灌溉的黃濟渠渠道。

The Hwangchi Canal conveys the waters of the Yellow River to irrigate the Inner Mongolian Autonomous District.





查勘隊來到了海拔五千餘公尺的青海高原——黃河河源，開始自己的工作。
A surveying team at work on the Chinhai Plateau, more than 5,000 m. above sea level.

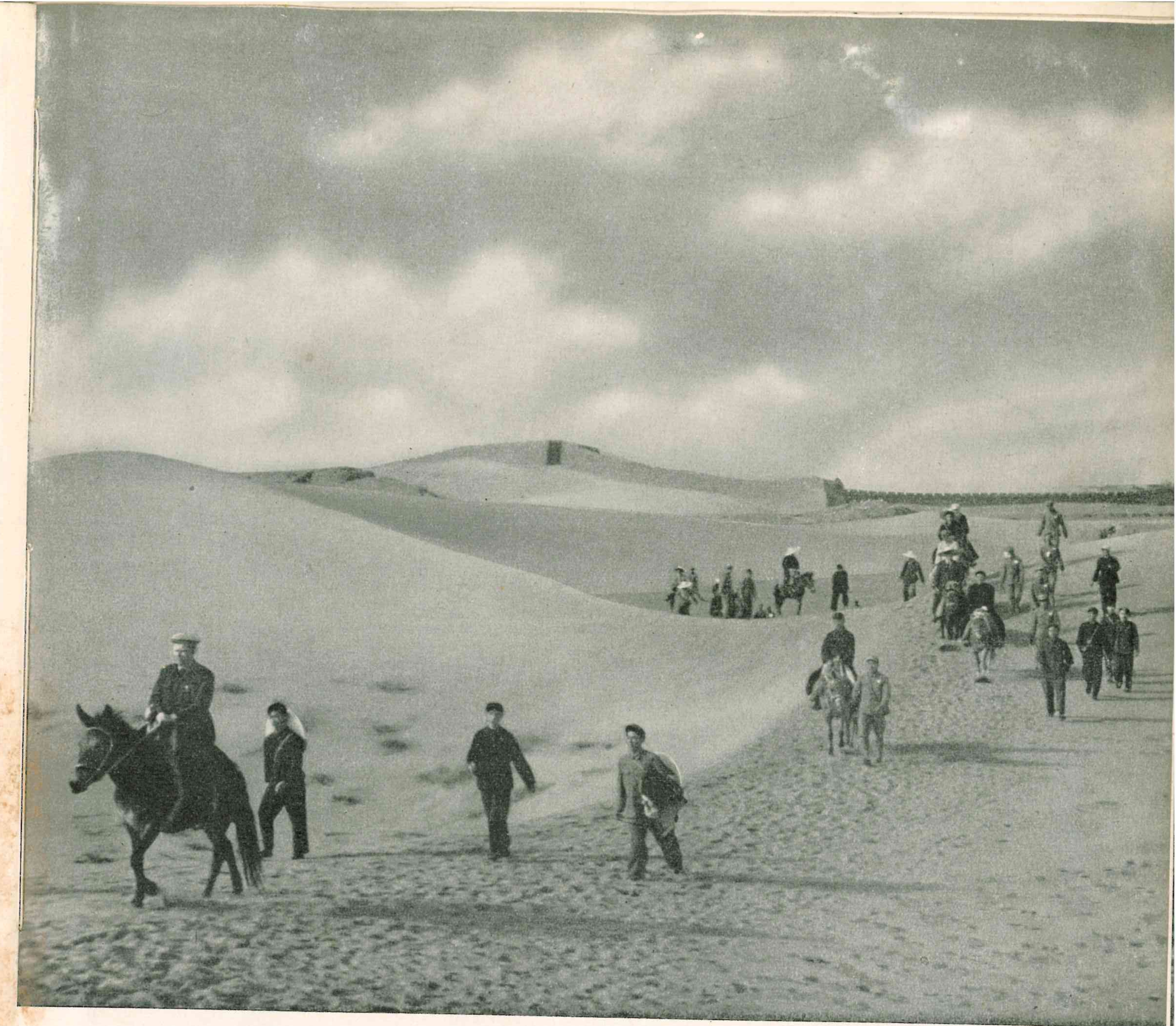
黃河泥沙的處理，是治理黃河的重要問題，這是爲研究黃河泥沙而專設的研究所。
This soil research laboratory tackles the Yellow River's No. I problem—erosion and sedimentation.



斯大林教養下的崇高的國際主義戰士——蘇聯水利專家，把精力用在黃河的根治上，把汗流在中國的土地上，這是黃河流域人民永遠不會忘記的恩情。

People in the Yellow River basin will never forget the labour and sweat of these Soviet experts in hydraulic engineering—Stalinbred champions of internationalism.





查勘隊又來到了這樣人煙稀少的高原上，爲根治黃河蒐集科學的資料。

A surveying team came to this sparsely inhabited plateau to gather scientific data for the development of the Yellow River.

黃河上的水文工作者，在進行着觀測研究工作，大家都在全力爭取黃河的全面治理和綜合利用早日開始。

Hydrological observations and researches are under way so that the project of harnessing the Yellow River may materialise earlier.



三門峽河道狹窄，〖人門〗〖鬼門〗〖神門〗形成了島嶼式的三門，河底岩石堅固，三門峽水庫就將建築在這裏。這座水庫計劃壩高達九十公尺左右，攔蓄河水的水位，可以高出海面三百五十公尺。

The Sanmen Gorge Dam will be built in this gorge with its foundation resting on sound and solid rock. The dam is designed with a height of about ninety meters and a level of impounded water about 350 m. above sea level.



查勘隊爬山涉水，不畏一切艱難來到這一深山狹谷地區——三門峽進行工作。

Surveying teams have to scale mountains and wade streams in order to reach Sanmen Gorge to work.



三門峽水庫建成後，將是我國已建成的水庫中最大的一座，它能蓄水三百六十億立方公尺，發電一百萬瓩。圖爲男女青年測工們在進行壩址的測量工作。

The Sanmen Gorge Reservoir with a storage volume of 36,000 million cub. m. and a hydro-electric capacity of a million kilowatts will, when completed, be the largest reservoir in our country. Picture shows young surveyors, men and women, mapping the dam site.

劉家峽也是黃河上修建水庫的優良壩址，建立攔河壩後，它能蓄水四十九億立方公尺，發電一百萬瓩。

Liuchia Gorge is another excellent dam site on the Yellow River. With the dam built, the reservoir behind it will hold 4,900 million cub. m. of water and generate a million kilowatts of electric power.



永定河歷史上被稱爲〖無定河〗，因爲它不知給人帶來了多少災禍。這是一九三九年永定河和大淸河、子牙河的洪水浸入天津市區的情况。

The Yungting River used to be called the "Wuting River" (literally "Never-resting River"), because it brought to the people many a disaster. Picture shows the city of Tientsin under water as a result of the overflowing of the Yungting, the Taching and the Tzeya River in 1939.

海河水系的治理

海河水系的永定河也是我國已進行根本治理的河流。

永定河號稱〖小黃河〗，發源於蒙古高原的南邊與晉北的丘陵地區，全長五百八十五公里，流域面積約四萬八千五百平方公里。它的原名是〖無定河〗，淸代皇帝曾經整修過一部分堤防，並把它命名爲〖永定河〗。但是這條頑強的河流並沒有服從皇帝的命令而永定下來，洪水還是經常氾濫着這塊數達三百平方公里至二千平方公里的地區。一九一七與一九三九年，永定河、大淸河的洪水匯流侵入天津市，結果京津鐵路交通斷絕，海河航道完全被泥沙淤墊。

我們對永定河的治理，一方面是在上游山區與黃土丘陵地區進行水土保持，以改善當地生產條件並減少泥沙的下洩，同時又修築水庫，控制洪水，以消滅下游洪水災害，並統籌開發永定河的水利資源。官廳水庫是計劃的水庫系統中最重要的水庫。控制流域面積四萬七千餘平方公里，佔全流域面積的百分之九十七，蓄水量二十二億七千萬立方公尺，是控制永定河洪水、開發水利的中心樞紐。官廳水庫已於一九五四年完成。一九五三年永定河發生有水文紀錄以來居於第二位的巨大洪水，水庫就起了攔洪作用，因而下游沒有發生災害。官廳水庫所攔蓄的水流，將用以發電，用以供給首都城市與工業發展的用水，並灌溉和改良下游一部分土地。目前水力發電工程，也已在施工了。

大淸河和子牙河也屬於海河水系，它們來自太行山區，匯合在天津西南獨流鎮附近。每當汛期到來時，這兩條河就嚴重地威脅着天津市的安全，並有時造成水災。爲了減輕大淸河洪水對天津的威脅，一九五〇年在大淸河與子牙河交匯處開挖了減河，以排洪入海。

獨流減河工程是相當巨大的，開挖的新河道長達四十多公里，並在河的兩岸各築一條高達五公尺半、頂寬七公尺的大堤。獨流減河進洪閘的最大進洪量爲一千零二十秒立方公尺，並在減河的右側建立了節制閘和船閘。

整個海河水系的治理並沒有結束，更多的工程尙在全面規劃中。

THE REGULATION AND DEVELOPMENT OF THE HAI RIVER SYSTEM

The Yungting River of the Hai River system is also a river in China which is being regulated and developed.

This river, known as the "Little Yellow River", has its sources on the southern slope of the Mongolian plateau and the hilly region of northern Shansi, with a total length of 585 km. and a drainage area about 48,500 sq. km. Emperors of the Ching (Manchu) dynasty had rebuilt some of the dikes and changed its original name the "Wuting River" (literally the "Never-resting River") into its present name "Yungting River" (literally the "Ever-resting River"). This obstinate river, however, did not obey the imperial order to become resting for ever, but kept on inundating an area from 300 to 2,000 sq. km. In 1917 and again in 1939, flood water of the Yungting and Taching rivers invaded the city of Tientsin, interrupted the railway communication between Peking and Tientsin and badly silted up the Hai River navigation channel.

The regulation and development of the Yungting River will proceed along these lines. On the one hand, soil conservation measures are to be carried out in the mountainous and loess-deposit regions along the upper reaches of the river to improve the local production conditions and to reduce the amount of silt carried down the river; on the other hand, reservoirs are to be built to control flood water, to eliminate flood damages on the lower reaches and to fully exploit the water resources of the Yungting River. The Kuanting Reservoir is the most important one among those planned and occupies a key position in the Yungting River development program. When only partly completed in 1953, the reservoir played a very important role in retarding the flood which ranked second in the river's hydrological record and spared its lower reaches from being inundated. Completed in 1954, it controls an area more than 47,000 sq. km. (about 97% of the entire drainage area) and has a capacity of 2,270 million cub. m. The regulated flow of the reservoir will be used for power generation, for municipal and industrial water supply of the capital and for the irrigation on part of the land lying along the lower reaches of the river. At present its hydro-electric power station is nearly completed.

The Taching and the Tzeya River, both belonging to the Hai River system and both originating from the Taihang Mountains, join their water courses near by Tuliu northwest of Tientsin. At flood season almost every year, these two rivers seriously threatened the safety of Tientsin, and sometimes brought about flood damages. To relieve the flood threat to that important city, an escape channel was constructed in 1950 from the river junction to the sea.

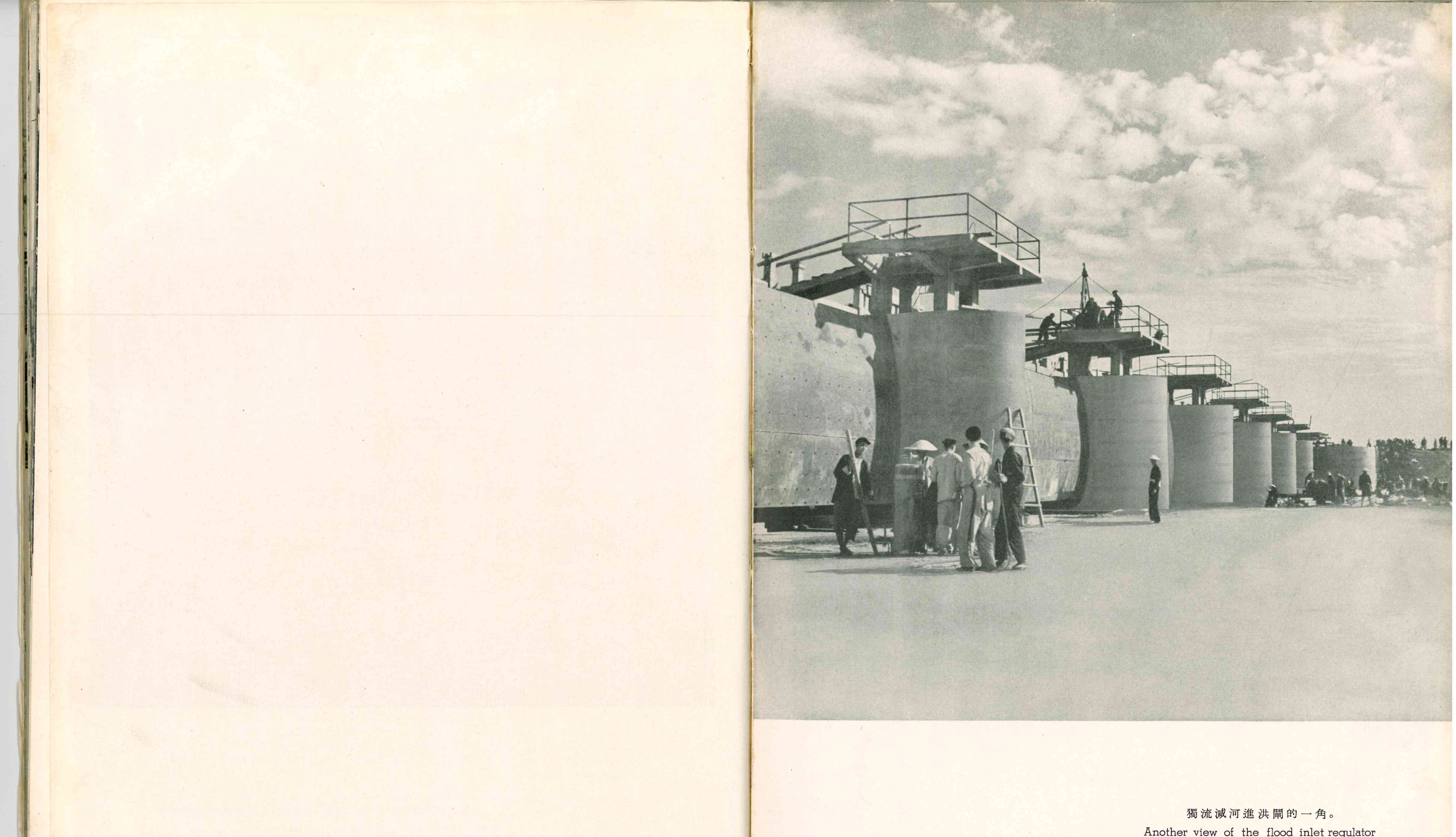
This escape channel is an engineering undertaking of considerable magnitude. It is more than 40 km. in length, and has dikes 5.5 m. high and 7 m. in top width on its banks. At its head is a flood-inlet gate designed for a maximum discharge of 1,020 cub. m. per second. On the right of the escape channel, a regulator and a navigation lock have been constructed.

These are but the first step in the regulation and development of the Hai River system, and a unified development plan is now in preparation.



在海河水系的大清河下游，開挖了獨流減河。這是減河的進洪閘。

Picture shows the flood-inlet requlator of the Tuliu Escape Channel which dispatches flood water of the Taching River to the sea.



獨流減河進洪閘的一角。
Another view of the flood inlet regulator at the head of the Tuliu Escape Channel.

在獨流減河的右側，爲了控制着子牙河和南運河的水流，修建了這座節制閘，並在它的旁邊修了船閘，以維持南運河的航運。

The regulator and navigation lock constructed on the right side of the Tuliu Escape Channel so as to control the waters of the Tzeya River and the Grand Canal to maintain the navigation of the Grand Canal.

在永定河上興建的官廳水庫。這是水庫施工的夜景。

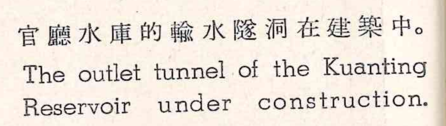
A night scene of the Kuanting Dam (on the Yungting River) under construction.





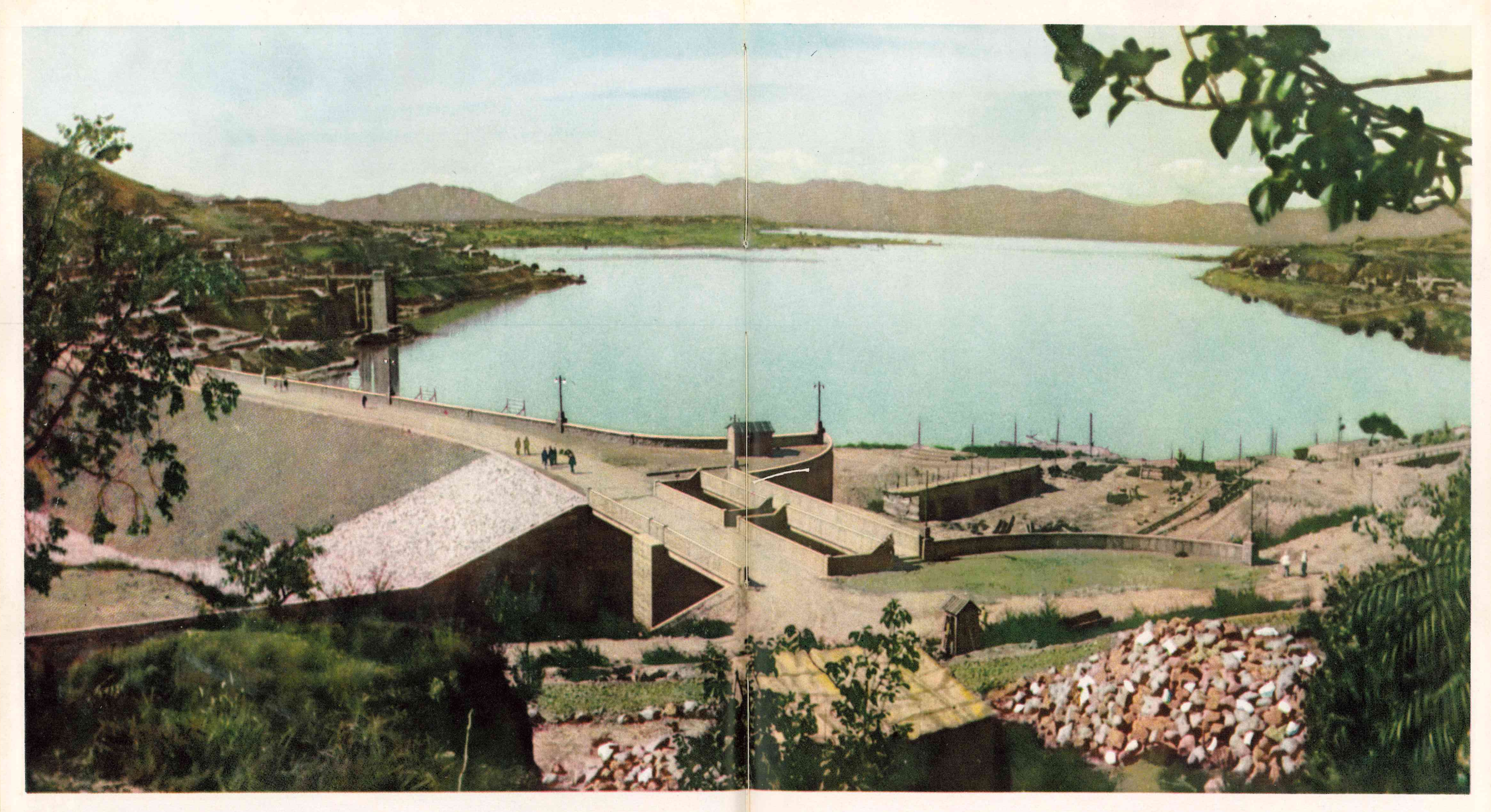
修築永定河官廳水庫土壩工程的羊脚碾羣。

A group of giant sheep-feet rollers at work in Kuanting Reservoir construction.



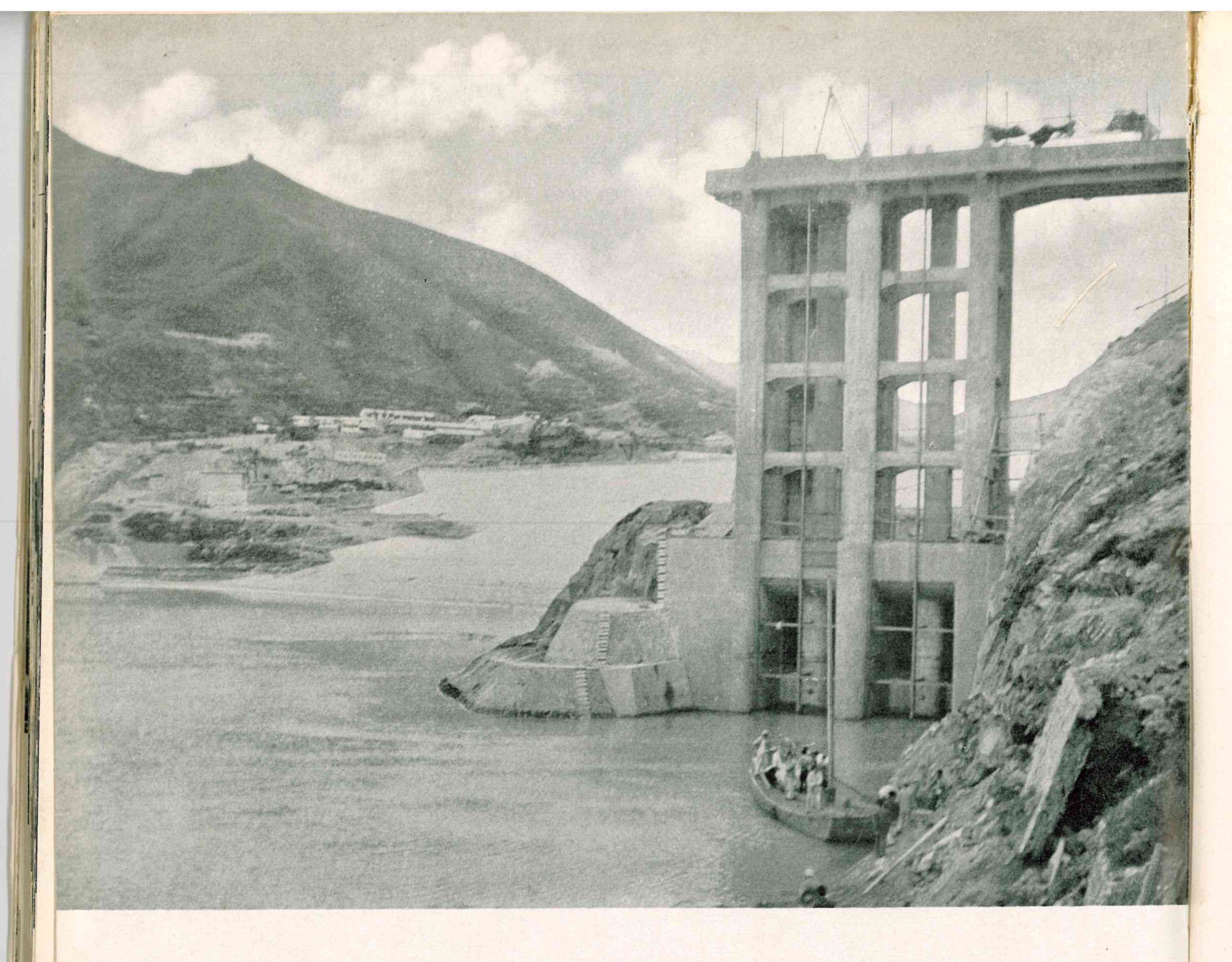
官廳水庫的輸水隧洞在建築中。

The outlet tunnel of the Kuanting Reservoir under construction.



官廳水庫建成了，這個寬廣的湖面，就是蓄水二二・七億立方公尺的水庫；它對控制永定河洪水、減輕水災起着重要作用，並將供給首都以電能和工業用水。

The Kuanting Reservoir after completion. This artificial lake is capable of holding 2,270 million cub. m. of water, contributes greatly to the control of the floodwater of the Yungting River, and will provide the capital with electric power and industrial water supply.



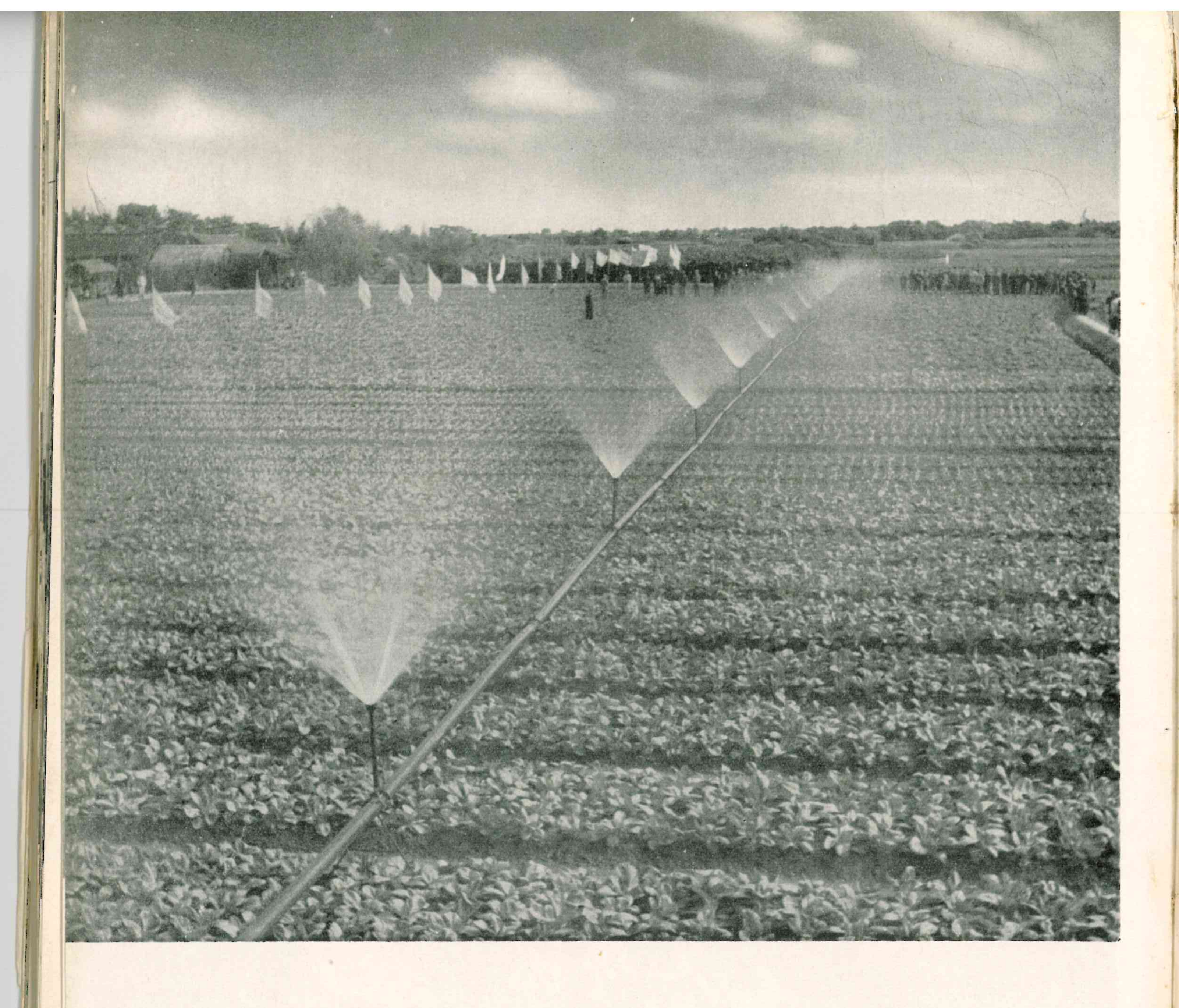
這是控制官廳水庫輸水隧洞的進水塔。

This intake tower controls the outlet tunnel of the Kuanting Reservoir.

在水庫落成典禮大會上，水利部傅作義部長將毛主席親筆題詞的錦旗授予全體職工。

During the inauguration ceremony, Minister of Water Conservancy Fu Tso-yi (right) presented the personnel with an ensign bearing Chairman Mao's inscription "Congratulations on the victorious completion of the Kuanting Reservoir".





上海郊區的人工降雨站。
An artificial precipitation station in suburban Shanghai.

農田水利

在進行各河流的治理同時，農田水利工程也在我國的廣大土地上得到普遍的開展。

幾年來共整修與興修渠道、塘堰九百二十三萬處，恢復與新建較大工程二百五十餘處，挖鑿水井一百萬眼。通過這些工程設施，除改善灌溉的農田面積不計以外，總共增加灌溉面積八千三百餘萬畝。這個數字大約相當我國數千年來累計發展的水田面積五分之一。

我國的農田水利工程，多數是在民辦公助的原則下，因地制宜地發展起來的。中國共產黨和人民政府不但對農民興修水利工程，進行了強有力的組織領導，同時每年還貸出大量的貸款，幫助農民解決資金的困難。較大的工程則由政府投資舉辦，其中如：河南省引黃灌溉濟衛工程，新疆紅雁池水庫，「八一」勝利渠等工程。原寧夏省的唐徠渠、四川省的都江堰、青海省的東原渠、陝西省的洛惠渠、遼寧省的梨樹灌區、黑龍江省的查哈陽灌區、山西省的汾河灌區等，都對發展農業生產起着重要的作用。此外機械灌溉排水事業也得到了相當的發展，除恢復了各地原有的抽水灌溉系統外，並重點地興建了江蘇省珥陵電力抽水灌溉工程，吉林省的郭前旗抽水灌溉工程，再加各省舉辦的小型抽水機站，全國共增加了抽水機五萬三千匹馬力。對於舊有的灌溉區也加強了管理，建立了制度，增建了田間工程，推廣了溝灌、畦灌等先進方法，並試行計劃用水，結合土壤改良，防止土地的鹽碱化。

水土保持工作也是農田水利工作的重要一環。幾年來共完成山間谷坊工程一百八十多萬座，配合植樹育林等工作，在逐步地改變着山區和黃土高原地區的自然面貌，對防止水土流失起着重要的作用。

隨着農業生產互助合作運動的發展，農民發展生產的積極性有了進一步的提高，因而農田水利工作也在飛躍地進展中。

LAND MELIORATION

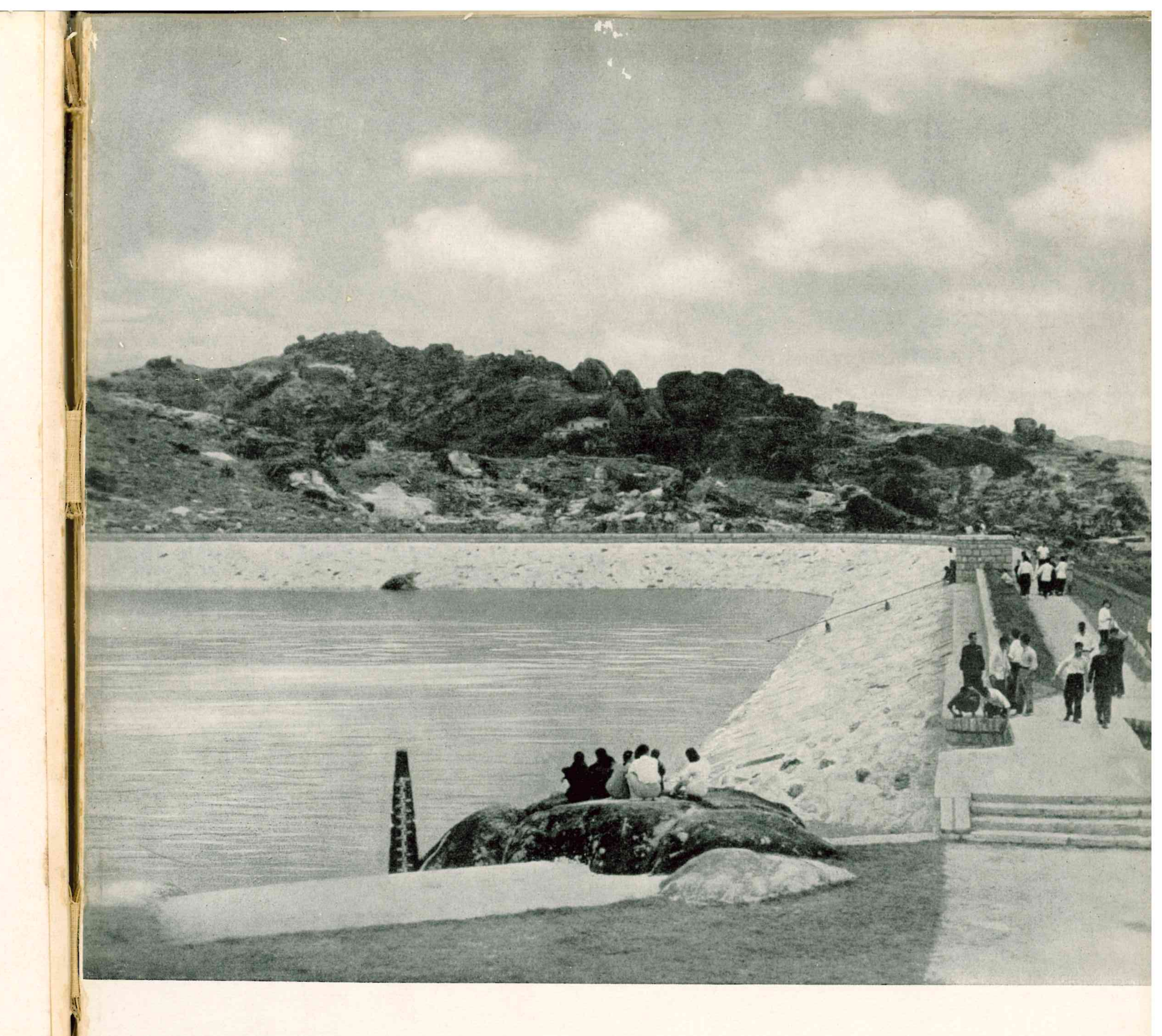
While river harnessing works are being carried on, land melioration works are also progressing on a vast scale.

During the past few years, 9,230,000 irrigation canals and ponds have been improved or dug, more than 250 major irrigation systems restored or constructed and a million wells drilled. Through these measures, we gain a total irrigated area of over 83,000,000 *mou,* not including that on which irrigation has been improved. This figure equals to about one fifth of the total accumulated irrigated area during the past thousands of years in our history.

Land melioration is mainly private undertakings done with government aid in consideration of the local needs. The Chinese Communist Party and the People's Government not only render effective organisational leadership to such work, but also make big loans every year to the farmers to help them solve their financial difficulties. The major projects are carried out with government investments. Furthermore, power irrigation and power drainage have also gained considerable progress with a total increase in pump capacity amounting to 53,000 horsepower. As for the already existing irrigation systems, their administration work has been improved, regulations have been established, progressive irrigation methods like furrow method and border method introduced, and measures for the utilization of irrigation water in a planned way have been practiced in connection with soil melioration to check alkalization.

Soil conservation is also an essential part of land melioration. The building of 1,800,000 check dams in co-ordination with afforestation has begun to change the natural features of the mountaineous regions and loess-deposit plateaus, and plays an important part in the checking of erosions.

Accompanying the progress of the mutual-aid co-operative movement in agricultural production, the peasants become more enthusiastic in the development of production, and thus the land melioration works are advancing by leaps and bounds.



在我國江南的丘陵地區， 小型的水庫得到了廣泛的發展， 它可以攔蓄山水，以發展農田灌溉。這是千百個小型水庫之一 —— 福建省萬石岩水庫。

Picture shows a typical small reservoir—the Wanshihyen Reservoir in Fukien. Thousands of reservoirs like this have been built in the hilly regions south of the Yangtze for irrigation purposes.



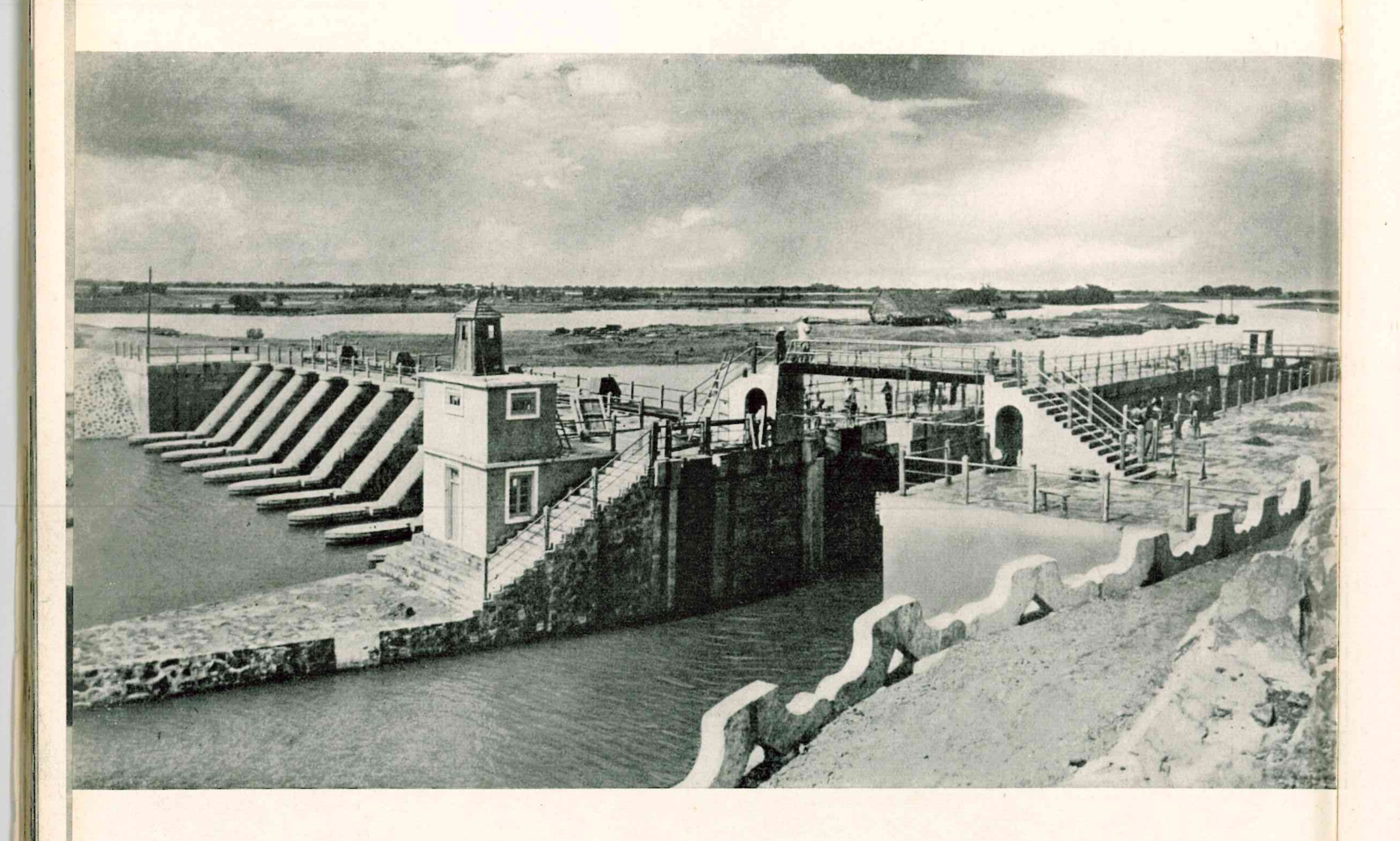
江蘇珥陵電力灌漑站建成了，抽水機代替了農民的體力勞動，圖示可以灌漑十餘萬畝田地的渠道和節制閘的景象。

Picture shows the irrigation canal and regulator to serve more than 100,000 *mou* of farmland. A pumping station at Ehling, Kiangsu, does the work which used to be done by manual labour.

我國的東部和東南部面臨大海，爲了防禦海潮，沿海岸興建了許多海塘。這是建築在上海浦東海濱的海塘。

Many seawalls have been built along the coast of eastern and southeastern China to ward off tidal attacks. This is the seawall on Putung beach near Shanghai.





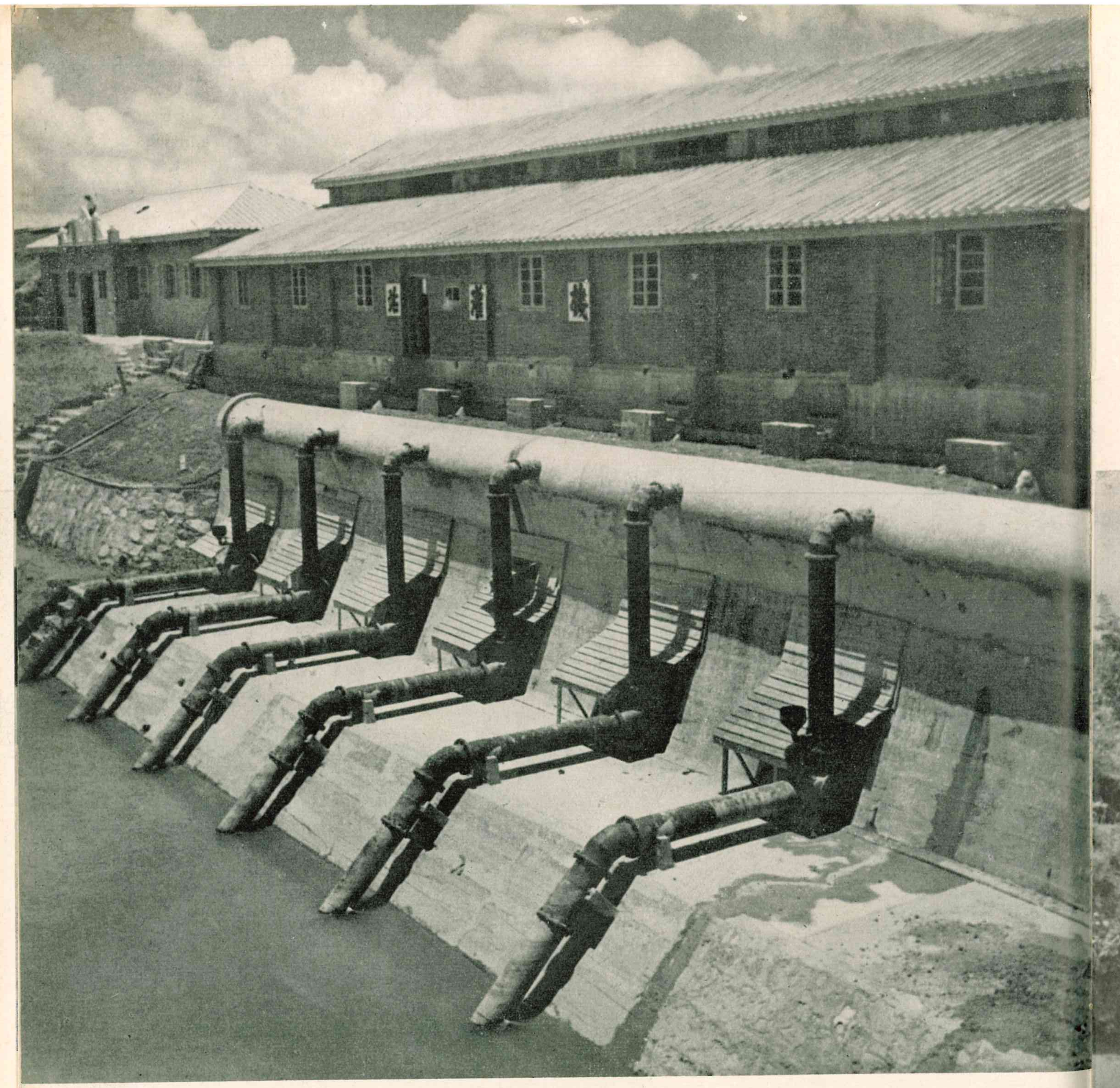
廣東珠江沿岸的樵北大圍官山閘。左面是節制閘，右面是船閘。
The regulator (left) and navigation lock (right) built at Kwanshancha on the Pearl River.



我國海南島黎族、苗族自治區的都總灌漑工程。
Irrigation works in the autonomous district of Li and Miao Minorities on Hainan Island.

粵東梅縣爲解决七個鄉農業生產合作社的灌溉用水而建立的灌漑工程。

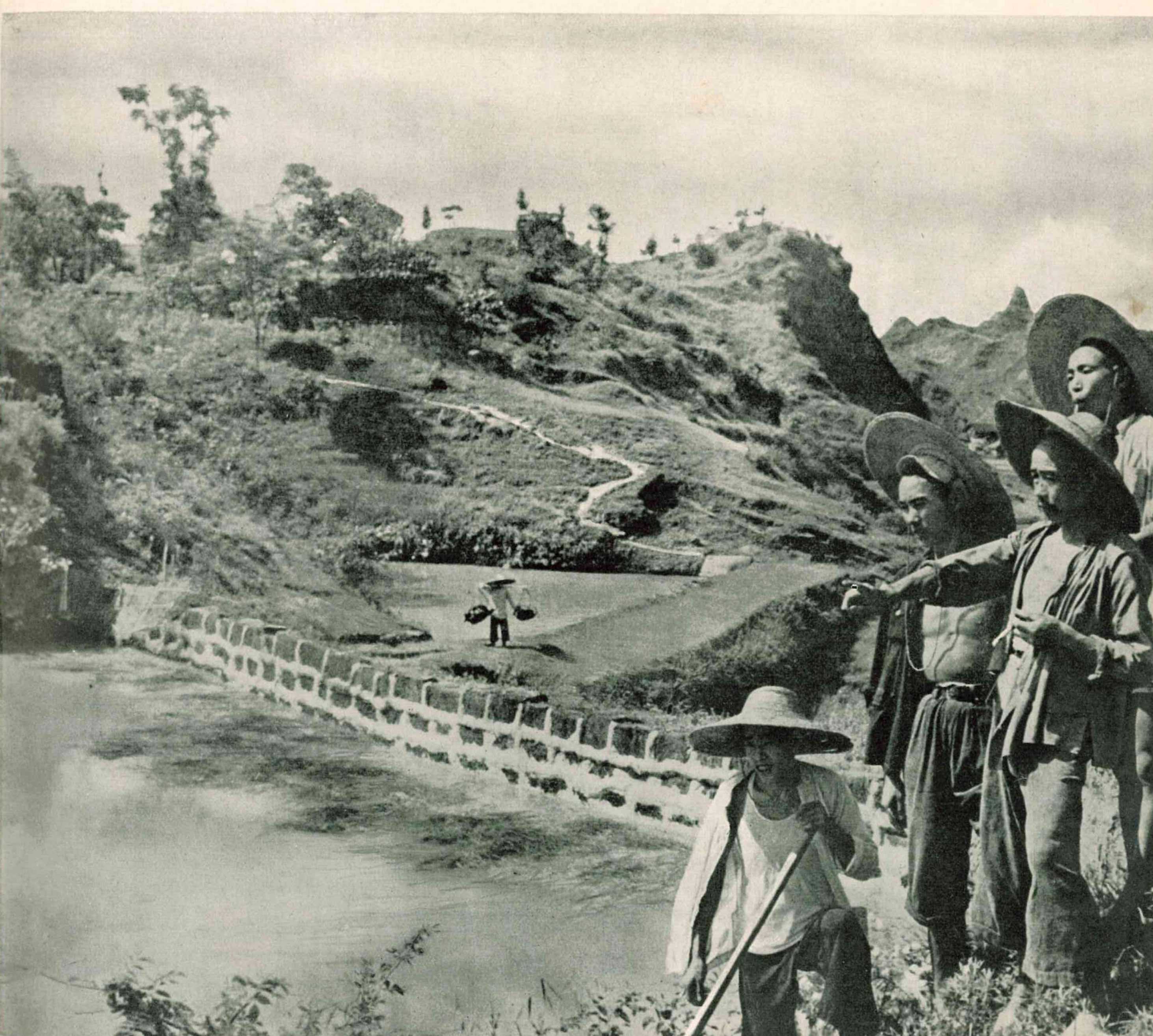
Irrigation work to serve seven farmers' co-ops in Meihsien, Kwangtung.





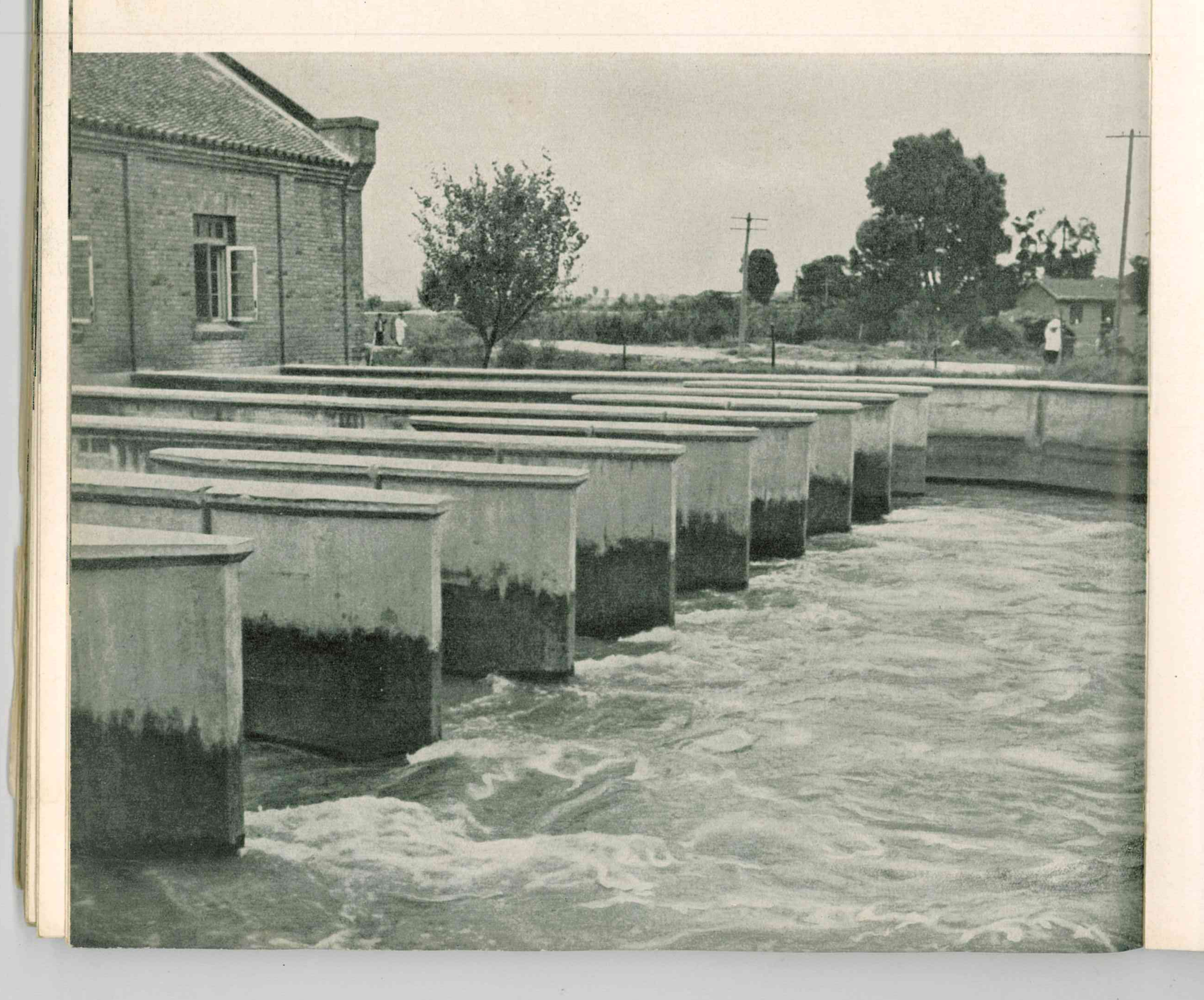
安徽省馬鞍圍烏哥嘴機械排灌站外貌。
A power drainage and pumping station in Anhwei.

在湖北省廣大面積的土地上，有計劃地修築了數以萬計的塘壩，供給農業生產的用水。
Thousands of ponds have been systematically built on extensive areas in Hupeh to serve agriculture.



河北省寧河縣的電力揚水站，把三十萬畝荒地變成了良田。

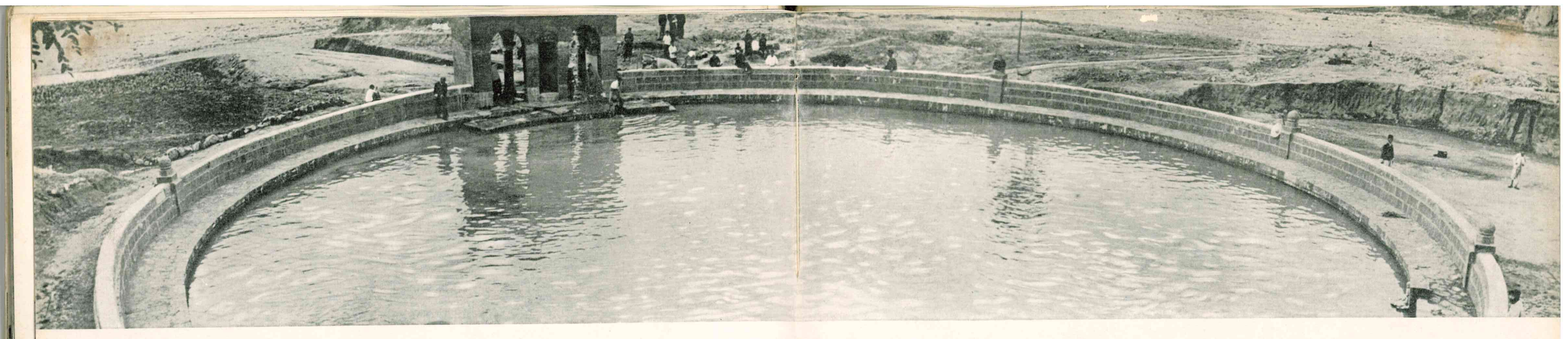
This electric pumping station in Ningho, Hopei, has turned 300,000 *mou* of wasteland into fertile farmland.





我國東北很多地區都利用這種形式的風車來帶動水車抽水，灌溉農田。

Such windmills are widely used in Northeastern China as a prime mover for lifting irrigating water.

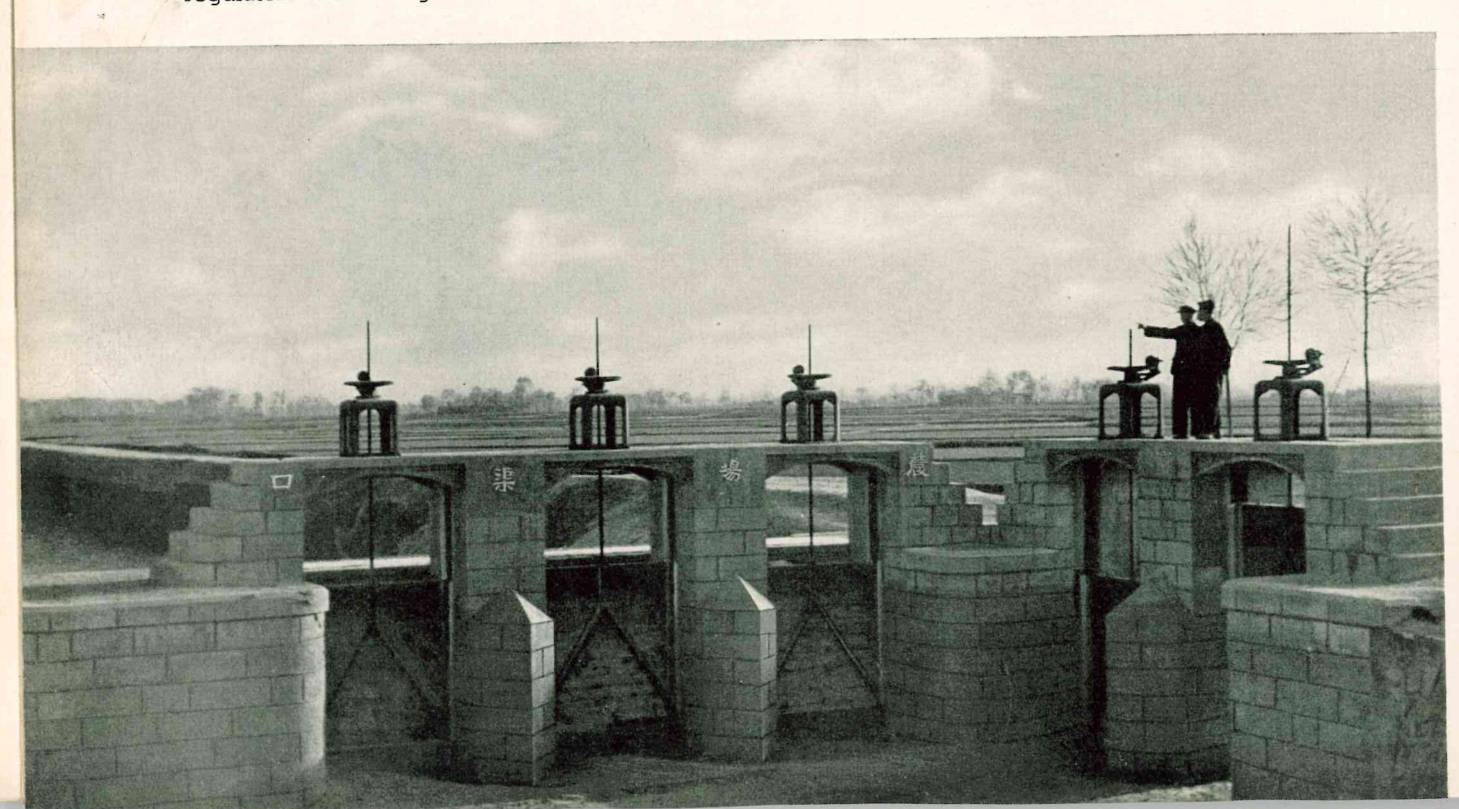


平順縣是山西省山區的縣城，幾千年來飲水困難，這是人民政府爲解決人民用水而建築的巨大蓄水池。

This is a storage pond built by the People's Government to supply water for people's daily need in Shansi.

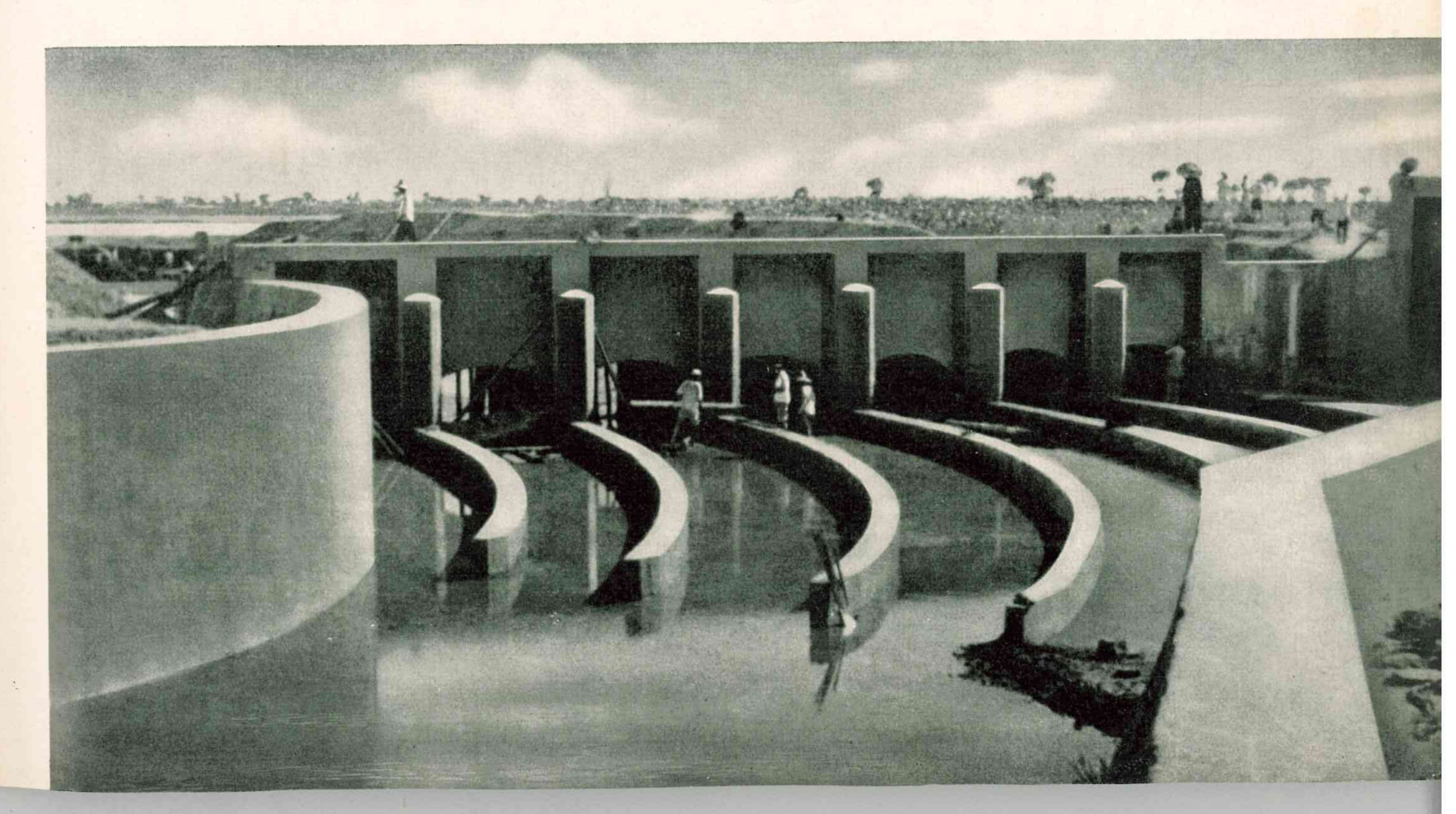
甘肅省河東回族自治區，農民們興建了許多灌溉渠道和水閘。這是靈武縣秦渠新建的分水閘。

Farmers of the Moslem autonomous district in Kansu have constructed many regulators and irrigation canals. Picture shows a newly-built diversion lock.



山西汾河新建的大型灌溉工程，能灌百餘萬畝農田。圖爲該灌溉區西幹渠的冲沙閘。

A new irrigation system on the Fen River in Shansi irrigates over a million *mou* of farmland. Picture shows the scouring gate on the western main of the system.

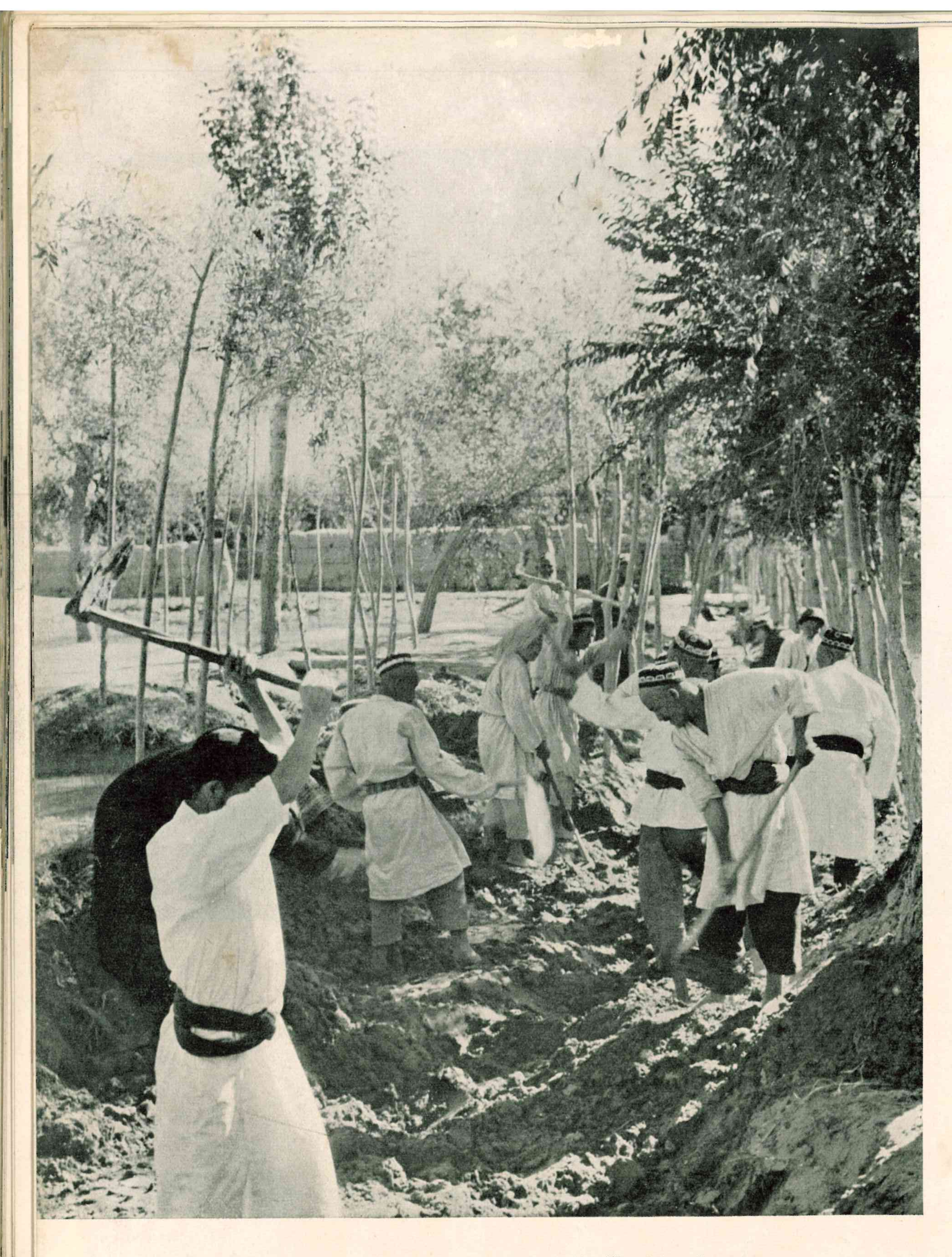




自陝西省楡林縣至甘肅省酒泉縣種植了三千里的防沙林，來與風沙進行鬥爭。圖爲楡林縣古城灘羣衆植樹情況。
A forest belt stretching 1,500 kilometers from Yulin in Shensi to Chiuchuan in Kansu is being used to fight sandstorms. Picture shows people in Yulin participating in afforestation work.



新疆紅雁池水庫和平渠的引水渡槽。
A flume on the Peace Channel in Sinkiang.

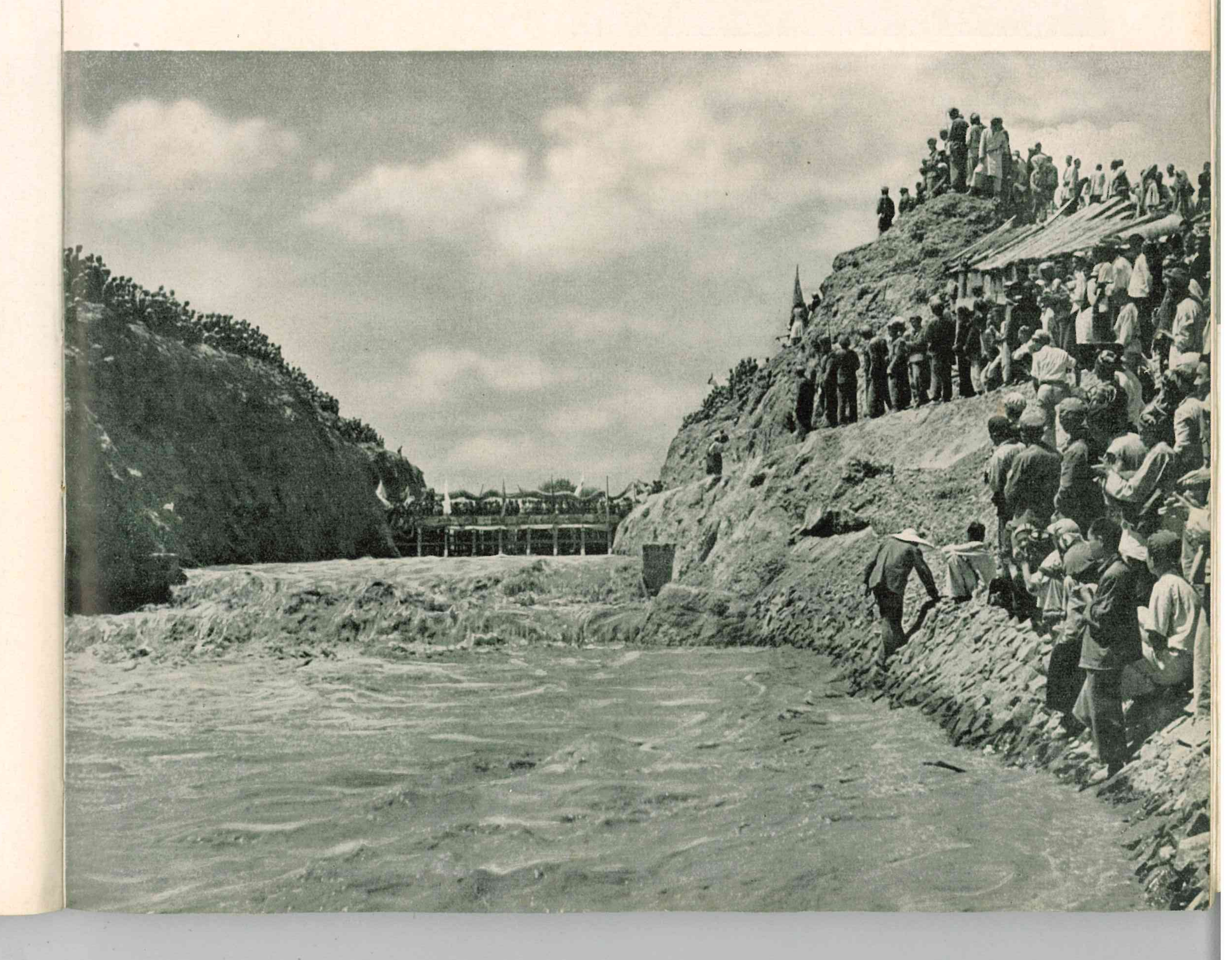


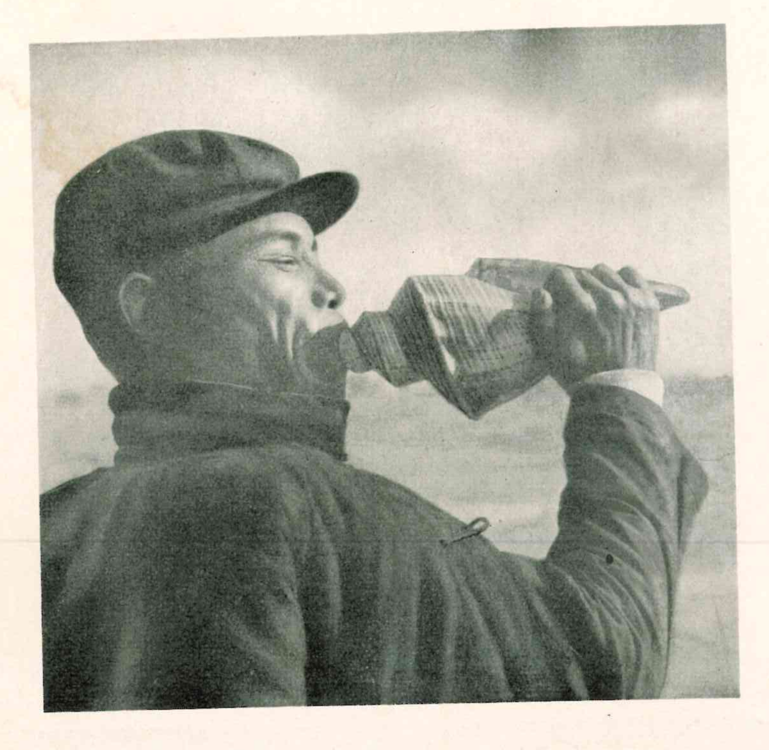
新疆喀什噶爾河畔維吾爾族農民，在人民政府領導下修築渠道，發展生產。

Uighur farmers in Sinkiang building irrigation systems under the People's Government's guidance.

新疆阿克蘇「八一」勝利渠放水盛況。

Inauguration ceremony of the "August First" Victory Canal in Sinkiang.





每當黃河汛期到來的時候，人們就警覺地吹起了防汛號角，有組織的防汛工作便開始了。
The horn arouses people at every flood season along the Yellow River and well-organised flood-fighting commences.

在黃河的險要堤段，人們緊張地搶險。
Battling with the floods in a critical sections on the Yellow River levee.



防 汛 鬥 爭

一九五四年，中國人民在和自然鬥爭的歷史上寫下了空前光輝的一頁。人們和百年來最大的洪水進行了四個月的鬥爭，獲得了重大的勝利。

這次特大洪水的發生，大體是這樣的：當時入四月以後，由於氣象上的特殊情況，暴雨區就先後集中到長江與淮河流域的廣大面積上；不但來時早，而且持續長，不但雨量大，而且集中，如長江的漢口市從四月到六月的雨量，就比歷年同期雨量大百分之九十一，一月到七月雨量總和卽達一千八百四十三公厘多，超過有紀錄六十一年來的全年平均雨量的百分之四十五。其他湖南、湖北、江西等地的七月份雨量，也都超過了同期降雨量數倍。淮河流域在七月不到三十天的時間內，許多地區的降雨量卽超過全年的降雨量，如淮河洪水災害特大的一九三一年的六、七兩月三十九天中，洪澤湖以上的降雨量，約合七百六十億立方公尺，而一九五四年同一地區的二十九天中降雨總量竟達七百七十九億立方公尺，因而長江的中下游和淮河流域的廣大地區都先後受了洪水的威脅。另外，黃河及華北的永定河、大清河、子牙河，東北的遼河，山東、江蘇的沂河、沭河，西藏的年楚河，新疆的伊犂河等，在七、八月間也相繼發生了超過常年的洪水。我們對此次特大洪水進行了數月的艱苦鬥爭，並獲得了重大的勝利。對這個重大勝利首先起決定作用的是中國共產黨和人民政府的正確領導和巨大的組織工作，國家鐵道、郵電、交通、氣象、糧食、商業、工業、衛生等許多有關部門，都對防汛工作給予了有力的配合和積極支援，千餘萬農民、工人、幹部、學生以及人民解放軍，組成了強大的防汛大軍，堅守在汛區江河湖泊邊岸對洪水進行了艱苦而頑強的鬥爭。防汛要什麽，後方就給什麽，充分地表現了我國人民患難與共、團結一致的精神。

其次，我們幾年來所興建的水利工程都充分地發揮了作用，荆江分洪工程數次開閘分洪，配合其他措施，順利地渡過了五次險惡的洪峯，保證了荆江大堤的安全。淮河上、中游所修建的五個水庫和十幾處湖泊窪地蓄洪工程，攔蓄了一百三十餘億立方公尺洪水；對削減洪峯、緩和洪水下洩，都起了重要的作用，因而保證了淮北平原未遭洪水災害，也保證了蚌埠、淮南等市和津浦鐵路的安全。下游由於三河閘、高良澗閘、蘇北灌漑總渠的修建，使洪澤湖水位及下洩流量得以操縱控制，減輕了洪水對運河東堤的威脅，保證了蘇北裏下河地區

的安全。一九五三年在河北省完成的獨流入海減河工程，曾分洩了大清、子牙兩河約一半的洪水，官廳水庫曾攔蓄了永定河的洪水，它們對於天津以及廣大農村的安全，都起了重要的作用。

在特大洪水的情況下，長江、淮河的堤防多數都在風雨交加、前江後湖的困難條件下，加修子埝，以與洪水爭高；荊江大堤二十餘萬防汛大軍夜以繼日搶堵二千餘處險工。武漢市二十餘萬軍民在百餘公里的堤綫上做了五期加高加固工程和六十餘公里的防浪木排。河北省和天津市也動員了大批軍民，搶修了子埝和防浪工程。各地在防汛搶險中，還湧現出了大批的英雄、模範人物，創造了許多搶險經驗；甚至有的爲防汛搶險，貢獻出自己的生命，留下了不朽的史蹟。

STRUGGLE AGAINST THE FLOOD

In 1954 the Chinese people wrote down an unprecedentedly glorious page in their history of struggle against the nature. This struggle against the worst floods in a hundred years lasted for four months and ended in decided victory.

Beginning in April that year, unusual meteorological conditions caused heavy rainfalls over vast areas in the Yangtze and Huai basins. The rains came earlier than usual and lasted unusually long. Besides being exceedingly heavy, the rainfalls were very much concentrated. For instance, the rainfall at the city of Hankow on the Yangtze River from April to June exceeded the mean precipitation of the corresponding period for years by 91 per cent, and the total volume of rainfall from January to July that year amounted to 1,843 mm., exceeding the annual mean computed from a 61-year record by 45 per cent. In other localities, such as the Hunan, Hupeh and Kiangsi provinces, the July precipitation was also several times the corresponding mean. On the Huai River basin, the rainfall in July at many places within a period less than 30 days already exceeded the annual mean precipitation. For instance, on the Huai River basin, in the year 1931 (a year with catastrophic floods), the volume of rainfall within a period of 39 days in June and July above the Hungtze Lake was 76,000 million cub. m., while in 1954 the total volume of rainfall in the same area within a period of 29 days already reached 77,900 million cub. m. As a result, the middle and lower reaches of the Yangtze River and the vast area of the Huai River basin were all exposed to flood threats. Furthermore, in July and August that year extraordinary floods also occurred in the Yellow River, and the Yungting, Taching and Tzeya rivers in North China, the Liao River in the Northeast, the Yi and Shu rivers in Shantung and Kiangsu, and even in the rivers in Sinkiang and Tibet. A tremendous struggle lasted for several months and ended in victory. The decisive elements that led us to victory were the correct leadership and the gigantic organizational work of the Chinese Communist Party and the People's Government. The railroad, postal and telegraphic communications, meteorological, food supply, commercial, industrial, public health and many other services concerned gave effective co-ordination and active support to the struggle. A gigantic flood-fighting army of over ten million people comprising farmers, workmen, government workers, students and soldiers put up an arduous and obstinate fight along the banks of the rivers and lakes in the threatened areas. The fact that they always got whatever they needed for flood fighting from

the rear fully proves the unity and solidarity of the Chinese people.

It should also be pointed out that the hydraulic works completed during the past few years all functioned during the 1954 floods according to what was expected of them. The Chinkiang Flood Diversion Basin was put into operation several times in cooperation with other measures, so that five severe flood peaks were overcome and the Chinkiang Dike kept intact. In the Huai River basin, the five reservoirs and ten odd detension basins along the upper and middle reaches controlled over 13,000 million cub. m. of flood water and thus played an important role in flattening out the flood peaks and retarding the downrush of flood water. Their function protected the northern plain of the Huai River basin from being inundated and also safeguarded cities like Pengpu and Huainan and the Tientsin-Pukow railroad. The Sanho and Kaoliangchien regulators and the Northern Kiangsu Main Irrigation Canal along the lower reaches of the Huai River made the control of the water stage and the outflow discharge from the Hungtze Lake possible, thereby reducing the flood threat to the eastern dike of the Grand Canal and protecting the Lihsiaho district in northern Kiangsu. The Tuliu escape channel in Hopei province, completed in 1953, diverted approximately half the flood volume of the Taching and Tzeya rivers; the Kuanting reservoir controlled the Yungting River flood water; both rendered decisive protection to the city of Tientsin and a vast expanse of farmland.

When the floods were at their height, parapets were speedily put up in a race with rising floods along the Yangtze and Huai dikes under severe storms and with water in front and behind. On the Chinkiang Dike, a flood-fighting army of over two hundred thousand people carried on the fight day and night and succeeded in saving more than two thousand critical spots from breaking. In the Wuhan metropolitan area, more than two hundred thousand soldiers and inhabitants raised and strengthened a dike of over a hundred kilometers five times, and constructed rafts totalling over sixty kilometers in length to ease the wave impact on the dike. In the province of Hopei and the city of Tientsin, large numbers of soldiers and inhabitants were also mobilized for putting up parapets and bank protections. In various places during the struggle, many distinguished themselves by their heroic and exemplary deeds, and numerous achievements were made in the devising of new flood-fighting measures and practices. Some even gave up their lives in the struggle; their gallantry and self-sacrifice will certainly be carried down in history for ever and ever.



黃河伏汛過去，淩汛又來，中國人民解放軍的空軍和陸軍部隊，也投入了這個鬥爭。圖爲空軍爆破冰淩所起的水柱。

The People's Liberation Army and the Chinese Air Force take part in the struggle against the winter floods of the Yellow River, which set in not very long after the summer freshet is over. Water columns run high when a bomb is hurled on an ice jam.

淮河與長江先後開始了緊張的防汛工作，水文工作者就這樣以船爲家，不分日夜地工作着。

During the critical struggle against floods in 1954, on the Huai River and the Yangtze River, hydrologists worked day and night, making the boat their home.





中國人民解放軍空軍部隊大力支援淮河防汛，積極向險工地段空投防汛器材。

The Chinese Air Force supported the battle against floods by dropping floods-prevention materials to critical sections.

一九五四年，長江發生了特大洪水，在緊張的防汛鬥爭中，婦女們也和男人一樣日夜堅守在長江大堤上。

In 1954, very severe floods occurred along the Yangtze River. During the critical struggle with the floods, women fought shoulder by shoulder with men on the Yangtze levee.





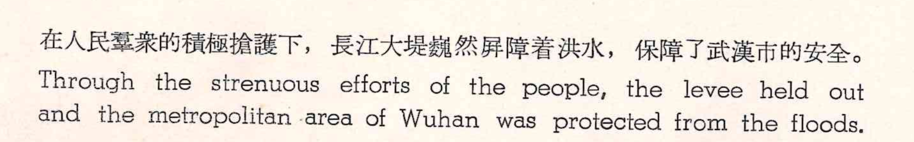




在「水漲堤高」的口號下，武漢市人民進行五期堤防加高加固工程。

Five times the people of Wuhan raised the dike and strengthened the bank protection in 1954. Their slogan was "Race with the flood".





在人民羣衆的積極搶護下，長江大堤巍然屏障着洪水，保障了武漢市的安全。
Through the strenuous efforts of the people, the levee held out and the metropolitan area of Wuhan was protected from the floods.

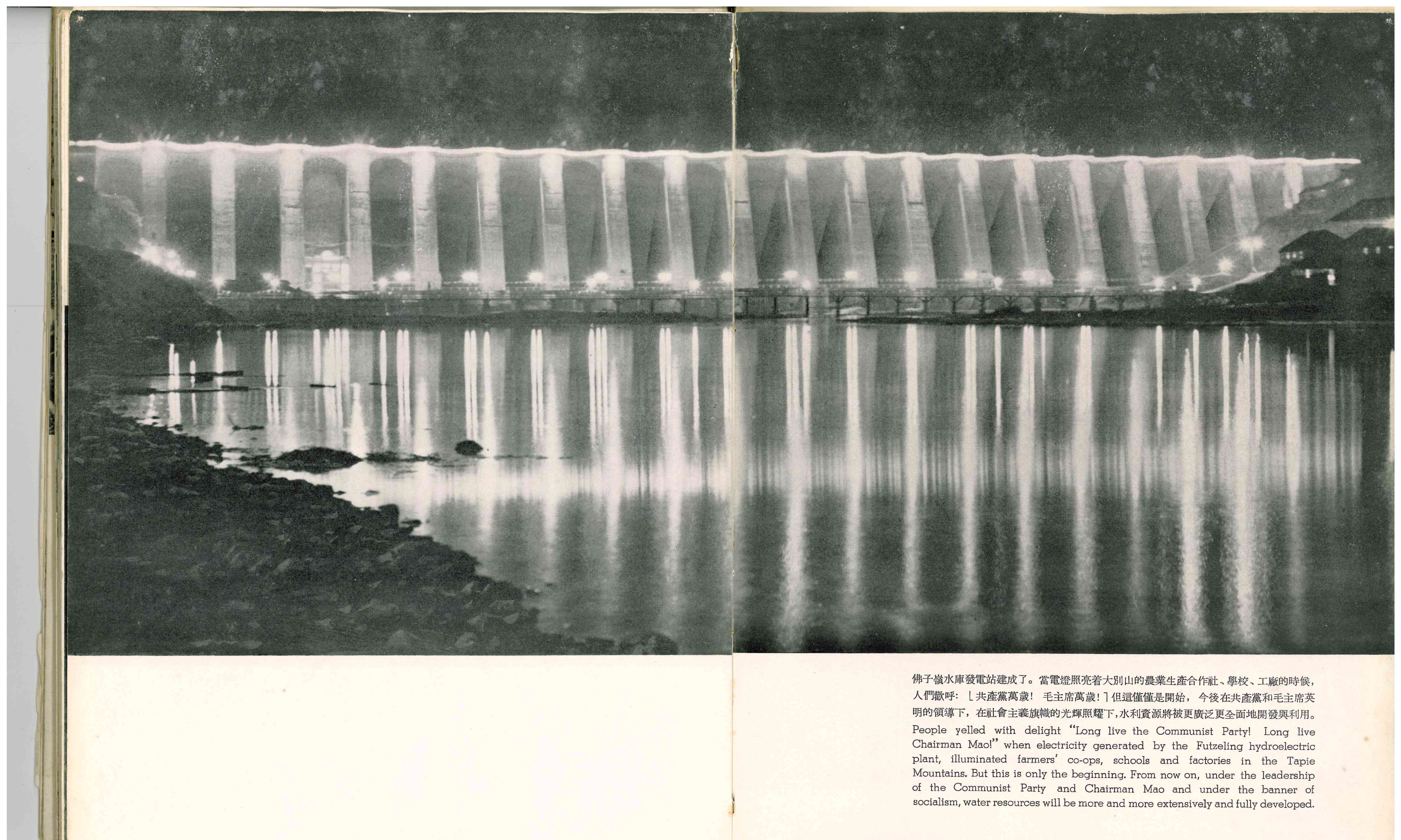
這位老大爺捻着豐碩的麥穗對孩子們說：〔治淮給我們帶來了豐收，今後好光景可長啦！〕
This grandpa points out the prosperous present and a happy future to the kids.





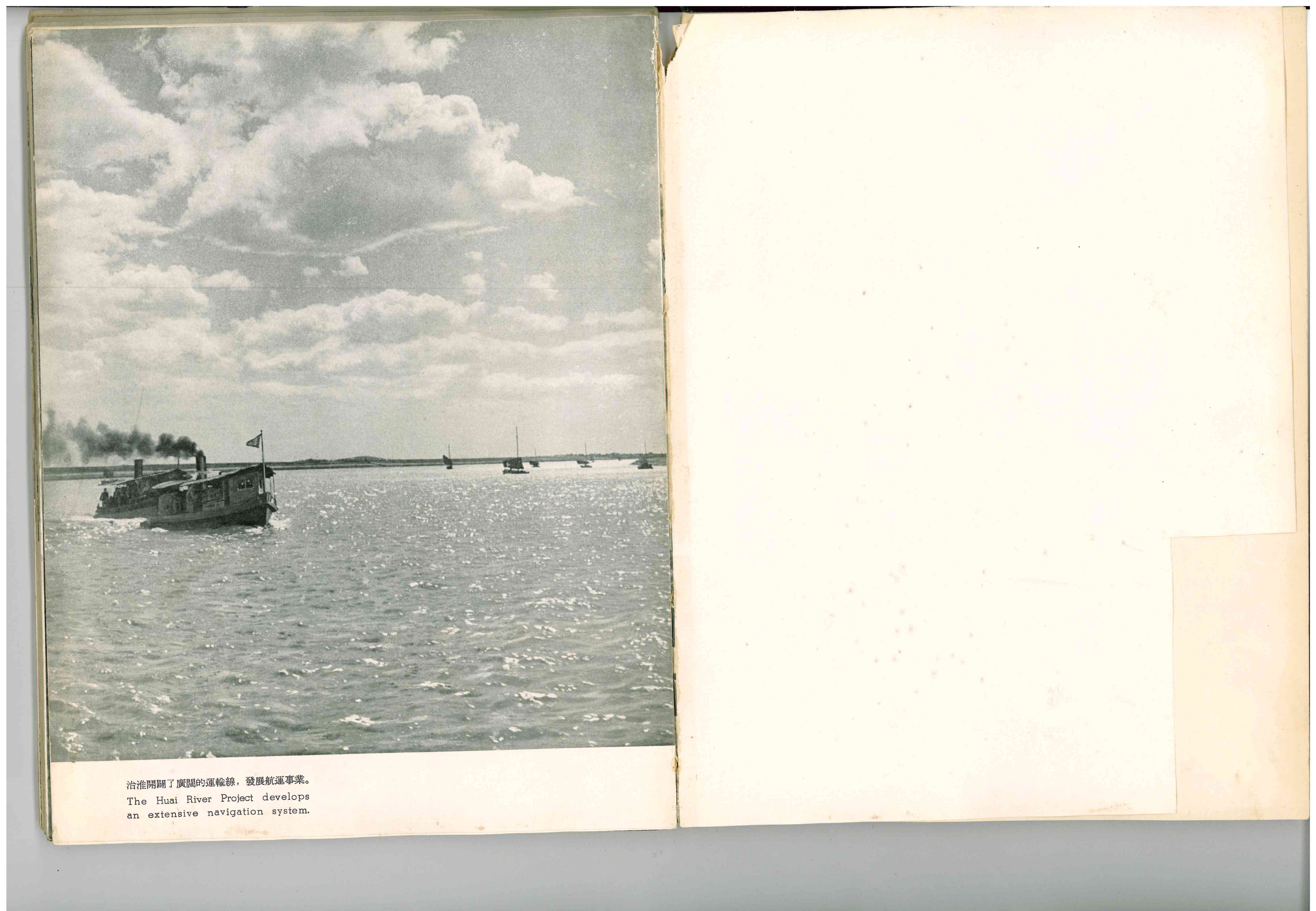
人們的堅强意志，加上各種水利工程的控制，蘇北平原上的人民，渡過了一九五四年的洪水期，獲得了水稻的豐收。

The firm determination of the people coupled with hydraulic engineering technique won a nation-wide victory over the 1954 floods. Farmers in Northern Kiangsu got a good autumn harvest even that year.



佛子嶺水庫發電站建成了。當電燈照亮着大別山的農業生產合作社、學校、工廠的時候，人們歡呼：〔共產黨萬歲！ 毛主席萬歲！〕但這僅僅是開始，今後在共產黨和毛主席英明的領導下，在社會主義旗幟的光輝照耀下，水利資源將被更廣泛更全面地開發與利用。

People yelled with delight "Long live the Communist Party! Long live Chairman Mao!" when electricity generated by the Futzeling hydroelectric plant, illuminated farmers' co-ops, schools and factories in the Tapie Mountains. But this is only the beginning. From now on, under the leadership of the Communist Party and Chairman Mao and under the banner of socialism, water resources will be more and more extensively and fully developed.



治淮開闢了廣闊的運輸線，發展航運事業。
The Huai River Project develops an extensive navigation system.



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